

XXII.—1910.

WEST RIDING COUNTY COUNCIL.



TWENTY-SECOND
ANNUAL REPORT
OF THE
COUNTY MEDICAL OFFICER,
1910.

Including an Abstract of the Annual Reports of the Medical
Officers of Health for the Sanitary Districts
within the Administrative County.

*Printed by Order of the Public Health and Housing
Committee, 18th September, 1911.*

WAKEFIELD:

C. W. CARR, WEST RIDING ELECTRIC PRESS, 14 KING STREET.

PREFATORY TABLE.

Showing the principal items of the Vital Statistics, etc., for 1910, relating to the West Riding Administrative County as a whole:—

AREA of Administrative County ... 1,673,550 acres

POPULATION, estimated to middle of 1910 ... 1,561,990 persons*

SANITARY DISTRICTS, 158, namely:—14 Non-County Boroughs

(For complete list see
Tables at end of report)

115 Other Urban Districts

29 Rural Sanitary Districts

	Year 1910.	Average of previous five years.
Birth Rate (Administrative County) ...	25·5	26·4
Death Rate ,, ,, ,, ...	13·9	15·1
Zymotic Death Rate ,, ,, ...	1·1	1·5
Phthisis Death Rate ,, ,, ...	0·8	0·9
Respiratory Death Rate ,, ...	2·2	2·5
Infantile Mortality , <i>i.e.</i> , Number of deaths under one year per 1000 births.	117	128

The arrangement of the matter in the report is as follows:—
Part I. deals with the general work of the County Health Department. *Part II.* gives an account of the work undertaken in the Bacteriological Laboratory during the year. *Part III.* is the Abstract of the Annual Reports of local Medical Officers of Health. *Part IV.* consists of Statistical Addenda.

JAMES ROBT. KAYE,

County Medical Officer.

Wakefield,
August, 1911.

* It may be stated here that the actual Census enumeration in 1911 gave the figure 1,585,135 as the population of the West Riding Administrative County.



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PART I.

SUMMARY OF THE WORK OF THE COUNTY HEALTH DEPARTMENT.

The year 1910, with which this report deals, was marked at its commencement by a change in the name of the Committee which controls the Health Department. The old "Sanitary Committee" of the County Council, which was the first of its kind to be established in the country, had to be re-named "The Public Health and Housing Committee" in consequence of Sec. 71 of the Housing, Town Planning, etc. Act. Under this Act, also, the Local Government Board issued an Order prescribing for the first time the duties of County Medical Officers, and in Article 7 of that Order there are laid down the headings or sections into which the County Medical Officer's Annual Report should be divided. In the present report, however, the arrangement which has served for 21 years is again followed, since it comprises practically all the stipulated headings and much other matter in a form with which the Council and the local Authorities are familiar. Moreover, with the great number and diversity of the Sanitary Districts in the West Riding, it is impossible in any reasonable space to give separate treatment to each of the local reports received.

The Central Staff of the County Health Department comprises, besides the County Medical Officer, three medical assistants, nine clerks and one county sanitary inspector. In connection with school medical inspection there are also ten medical assistants, resident at different centres in the Riding, and in connection with the Sale of Food and Drugs Acts we have a call on the services of ten County Council Inspectors who are primarily engaged on the inspection of weights and measures. During 1910 two changes took place in the central staff as follows:—(1) Dr. H. C. T. Langdon became Medical Officer of Health for Mansfield and was succeeded here by Dr. A. Richmond; (2) Dr. Thomas Orr left for Shrewsbury and his post in the laboratory here was filled by Dr. P. L. Sutherland.

Meetings, Conferences, Reports Etc.—I attended meetings of the Public Health and Housing Committee or its sub-committees on 10 occasions and reported on 55 matters under consideration. Copies of my Annual Report and of the Special Report on the Sanitary Survey of the Bishopthorpe Rural District were forwarded to the Local Government Board in accordance with Statutory Orders. On the 25th November a Conference was held between the County Committee and the Sanitary Authorities of the Riding to consider a proposal for the establishment of a Sanatorium. Throughout the year the Department

was in close touch with the officers of the 158 Sanitary Authorities who were regularly visited and consulted on numerous matters affecting health. No Sanitary Congress was officially attended during 1910, as the Local Government Board, upon special application made to them, stated that they would not be prepared to sanction any expenditure so incurred. More recently, however, in connection with a particular Congress to be held in London, the Local Government Board intimated beforehand that the expense of sending delegates would be sanctioned.

Parliamentary Work. *Private Bills.*—Although I examined and reported upon the Private Bills of 1910, there were none which subsequently called for special attention from this Department. The Maltby and Tickhill Water Bill was withdrawn, while the Thorne and District Water Bill became law and will, it is hoped, lead to the much-needed provision of a satisfactory water supply for the districts concerned.

Public Bills.—The Midwives Bill received careful attention, and the Committee made proposals for its amendment in certain particulars which were not accepted by the Government. However, the Bill was dropped. The Water Supplies Protection Bill was also considered, and the Committee suggested amendments for safeguarding the wells in localities where colliery shafts and similar works are being put down. The Parliamentary Committee on this Bill expressed the opinion that, before any legislation of the kind is carried, there should be a comprehensive enquiry into the whole subject of surface and underground water supplies.

Laboratory Work.—The work of the bacteriological laboratory is dealt with in a separate section of this report (see page 20), in which details are given concerning the 10,136 specimens examined during the year. From January to April, the laboratory was in charge of Dr. Thomas Orr. From May onwards, Dr. P. L. Sutherland has been responsible for the work, and largely owing to his energy and skill the laboratory has more than maintained its reputation as an indispensable part of the public health machinery of the Riding. Dr. Adam and Dr. Richmond, besides carrying out their other duties with every satisfaction, have as occasion required given a hand with certain phases of the laboratory work. The table on page 75 shows the specimens were received from almost every part of the Riding, some districts making very extended use of the laboratory.

Local Government Board Inquiries.—The County Health Department has always taken a close interest in local sanitary schemes, many of which are really the outcome of negotiations between the Local Authority and the County Health Committee. Intimation of the holding of Local Inquiries is supplied to the

County Council by the Local Government Board, and quite recently the Board have communicated the results of their Inquiries regarding matters in which the County Council is interested. The following table gives the list of such Inquiries held in the West Riding during 1910:—

Date.	Sanitary District and Locality.	Subject.	Amount.	Result
4.1.10	Bishopthorpe R. <i>Cop-</i> <i>manthorpe</i> ..	Water Supply	£ 996	Sanctioned
12.1.10	Pateley Bridge R. <i>Bishop Thornton and</i> <i>Clint</i>	Sewerage and Disposal	850	"
8.2.10	Horsforth	Water Supply	2070	"
9.2.10	Holmfirth	" "	550	"
23.2.10	Pontefract R. <i>Carleton</i> ..	" "	420	"
24.2.10	Rawmarsh	Sewerage and Surface water drainage ...	2000	"
30.3.10	Shelf	Sewerage and Disposal	3250	"
6.4.10	Tadcaster R. <i>Barwick</i> <i>in-Elmet</i>	Water Supply	9000	Pending
7.4.10	Pateley Bridge R. <i>Upper Stonebeck</i> ..	Sewerage and Disposal	179	Part sanct'd.
6.5.10	Honley	" "	3900	"
11.5.10	G. Ouseburn R. <i>Green</i> <i>Hammerton</i>	Water Supply	1000	"
13.5.10	Kiveton Park R. <i>Dinnington</i>	Sewerage and Disposal (modified scheme) ...	—	Sanctioned
24.5.10	Barkisland	Sewerage ...	1200	"
7.6.10	Hunslet R. <i>Middleton</i> ..	Sewerage and Disposal	650	"
21.6.10	Wakefield City	Sewage Disposal ...	1772	"
15.7.10	Kiveton Park R. <i>Dinnington</i> <i>Harthill & Woodhall</i> <i>N. & S. Anston</i> .. <i>Todwick</i> <i>Wales</i>	} Water Supply }	14408	"
2.8.10	Garforth			
11.8.10	Doncaster R. <i>Adwick</i> <i>le-Street</i>	Water Supply	4642	"
12.8.10	Doncaster R. <i>Carcroft</i> ..	Sewerage and Disposal	6000	"
24.8.10	Bolton-upon-Dearne ...	" " Working-class dwellings	7700	"
1.9.10	Methley	9475	"	"
	do.	Sewerage ...	670	"
	do.	Water Supply	222	"
6.9.10	Skipton R. <i>Hebden</i> ..	" "	160	"
7.9.10	Barnsley Borough ...	Street Improvement	5090	"
	do.	Sewage Disposal ...	3400	"
20.9.10	New Mill	Sewerage and Disposal	563	Part Sanct'd.
21.9.10	Gunthwaite and <i>Ingbirchworth</i>	Sewerage ...	550	Sanctioned
7.10.10	Tadcaster R. <i>Allerton</i> <i>Bywater and Kippax</i> ..	Sewerage and Disposal	2500	Pending
8.10.10	Rotherham R. <i>Bramley</i> , <i>Brampton</i> , <i>Hooton</i> <i>Levitt</i> , <i>Laughton</i> <i>Maltby</i> , <i>Ravenfield</i> <i>Ulley</i> , <i>Wickersley</i> ..	Water Supply	8596	Referred Back

Date,	Sanitary District and Locality.	Subject,	Amount,	Result.
19.10.10	Skipton R. <i>Farnhill</i>	Sewerage and Disposal	£ 2620	Referred Back
"	<i>Kildwick ...</i>	" "	380	Sanctioned
20.10.10	Hemsworth R. <i>Brierley, Havercroft, Hemsworth, Ryhill, Shafton, S. Elmsall, S. Hiendley, S. Kirkby ...</i>	Water Supply	5057	"
21.10.10	Rotherham R. <i>Maltby</i>	Sewerage and Disposal	8420	"
10.11.10	Thurlstone ...	Water Supply ...	350	"
18.11.10	Selby R. <i>Cawood</i>	" "	3032	"
"	<i>Gateforth ..</i>	" "	969	"
"	<i>Thorpe Willoughby ...</i>	" "	465	"
22.11.10	Barnoldswick ...	Sewerage ...	1308	"
24.11.10	Knaresboro' R. <i>Follifoot</i>	Sewerage and Disposal	750	"
29.11.10	Hoyland Nether ...	Suggested use of surplus land for working class dwellings	—	Pending
7.12.10	Featherstone ...	Sewage Disposal ..	7130	Sanctioned
7.12.10	Leeds R. <i>Roundhay</i>	" "	3249	"
"	Do. <i>Seacroft</i>	" "	1771	"
14.12.10	Rotherham R. <i>Bramley</i>	Sewerage and Disposal	2854	"
15.12.10	Otley ...	Refuse Tip ...	1150	Refused
"	Otley ...	Sewerage ...	—	"

Isolation Hospitals.—In a later section of this report, particulars are given as to the use made of the numerous hospitals throughout the Riding, and in Table III (see end) there is a statement of the number of cases isolated in every Sanitary District.

The County Health Department kept in close touch with the administration of the various institutions during the year, and on several occasions a transfer of nurses was negotiated through the medium of the "Nurses Exchange." The Chairman and Vice-Chairman of the West Riding Public Health Committee continued the useful custom of making a tour of the principal hospitals, with a view chiefly of noting any requirements or deficiencies in those which were established under Orders of the County Council. Following these visits, suitable communications were addressed to certain hospital Authorities, and there is no doubt that much good resulted. Consideration was also given to the needs of several districts where hospital accommodation is not provided on an adequate scale, and it may be well to enumerate a few of these, as follows:—

At *Stocksbridge*, the only hospital is a wooden structure, originally intended for the isolation of persons suffering from small-pox. In the absence of small-pox, the building is being used for other infectious diseases, but it is quite unsuitable for the purpose, and proper accommodation of a permanent character

should be provided. The existing building might very well be equipped and retained for small-pox cases, or, better still, the District Council might come to terms with the Council of the neighbouring district (Wortley Rural), whose application for sanction to erect a small-pox hospital is now before the Local Government Board.

Calverley and *Farsley* are without accommodation for small-pox patients, and a proposal for joint provision has formed the subject of several conferences with the Borough of Pudsey. The question of site appears to form the chief difficulty, but it is to be hoped that this will be overcome and that combined action will eventually be taken.

The *Pateley Bridge* Rural District Council's Hospital was found upon inspection by the County Sub-Committee to have no mortuary, and only indifferent laundry accommodation. The Council were asked to make the requisite provision.

The Sub-Committee also visited the Joint Hospital, which serves the *Ripon* City and the *Ripon Rural* District. The hospital was found to be unsuitable for its purpose, and a report was subsequently made by the County Medical Officer under Section 6 of the Isolation Hospitals Act, 1893, as to the necessity for hospital accommodation for general infectious diseases in the Rural District. At the close of 1910, a conference was being arranged between the County Committee and the two Authorities concerned, and this took place early in the present year, the Rural Council agreeing to consider the question of improving their accommodation. The attention of the *Ripon Rural* Council was also drawn to the absence of a mortuary and of means for disinfection at their small-pox hospital.

Tadcaster R.—A deputation of the County Committee met the local Hospital Committee to discuss the provision of additional accommodation, the existing temporary building being inadequate for the requirements of the district it serves. Mining operations were said to stand in the way of a new permanent building, but extensive alterations of a temporary character have been made.

Sedbergh R.—A modification of the plans with regard to the position of the closets received the sanction of the Local Government Board and the Hospital buildings have since been completed.

Rawmarsh.—This hospital was formally opened during the year for the reception of persons suffering from infectious diseases other than small-pox. The County Health Department advised on several questions of administration, such as the hospital rules and regulations, appointment of officers, and the provision of drugs and other medical requisites.

The Wakefield and District Small-pox Isolation Hospital Committee opened their new hospital, which serves nine sanitary districts. The proposal that the buildings should be utilised for the treatment of phthisical patients, rather than remain empty in the absence of small-pox, has not been taken up, the constituent Authorities not being agreed on the question.

Great Ouseburn R.D.—The County Committee were in communication with the District Council upon a question affecting the internal administration of the hospital.

Sanatorium.—The revived consideration of the project for a County Sanatorium took up much time during the year, including the search for a satisfactory site and the inspection of existing institutions in other parts of the country. Eventually in October 1910, the Committee put forward a definite scheme for the acquisition of the Carr Lodge Estate at Dacre in the Pateley Bridge Rural District, and for the erection thereon of a Sanatorium comprising 100 beds. The scheme contemplated the forming of a “hospital district” to consist of all or some substantial proportion of the Sanitary Districts in the Riding, with a Hospital Committee constituted by Order under the Isolation Hospitals Acts. It was proposed that the County Council should provide the capital for the site and the whole of the “Structural Expenses,” estimated at £16,000, and also any of the “Establishment Expenses” which were not capable of being met by the contributions of the local Authorities calculated at a fixed weekly charge per patient. After a very full discussion of the scheme the County Council passed the following Resolution: “That the County Council provisionally approve of the “proposals now submitted by the West Riding Public Health “and Housing Committee and instruct them to convene a Conference of local Authorities to consider the subject, the scheme “and estimate to be embodied in a report to be printed and “supplied before-hand to each Authority.”

Accordingly, on the 25th November, 1910, Sir John C. Horsfall, Bart., Chairman of the County Council, presided at a largely attended Conference with the Sanitary Authorities, the outcome of which was the following unanimous resolution:— “That the representatives of the Local Authorities here assembled “undertake to lay the matter before the Councils they represent “and to ask them to report at as early a date as possible whether “they are in favour of joining the scheme.”

The reports subsequently received from the various Authorities showed that many of them who were formerly in favour of a County Sanatorium had changed their views, although there were still sufficient adherents to render a modified scheme workable. It is needless, however, to enter into detail here

because the whole outlook has recently been changed by the important proposals regarding Sanatoria which are contained in the National Insurance Bill now before Parliament. The Committee at their last meeting resolved—"That under these circumstances the further consideration of the subject of providing a sanatorium for the treatment of tuberculous patients stand over."

The Milk Supply and Tuberculosis.—Before recounting what has been done on this subject in the West Riding, it may be well to refer briefly to the recently issued Report of the Royal Commission on Tuberculosis. This Commission was appointed chiefly to settle the question as to whether bovine tuberculosis is directly transmissible to human beings, and, if so, under what conditions. The findings of their ten years' work include the following clear and definite statements:—

(1) "Our researches have proved that in a considerable proportion of cases of the human disease, the lesions contain and are caused by bacilli which are in every respect indistinguishable from the bacilli which are the cause of tuberculosis in cattle. In all such cases the disease therefore is the same disease as bovine tuberculosis." *See Final Report, page 36.*

(2) "The evidence which we have accumulated goes to demonstrate that a considerable amount of the tuberculosis of children is to be ascribed to infection with bacilli of the bovine type transmitted to children in meals consisting largely of the milk of the cow." *See Final Report, page 39.*

Our policy in the West Riding has all along been framed on a strong presumption of the transmissibility of tuberculosis by means of infected milk, and the County Health Department has for some years undertaken the examination of samples of milk for the detection of the *Bacillus Tuberculosis*. During 1910 the number of samples so examined was 51, of which three gave positive results (see page 24). Assistance has also been given to various Authorities in enabling them to follow up and investigate inside or outside their area, the sources from whence tuberculous milk was being received. In the course of this work the fact has been frequently demonstrated that the sampling of milk for the purpose of discovering the tubercle bacillus requires to be carried out on very different lines from ordinary food and drugs sampling. If the results of the examination are to be followed up with certainty it is necessary to ascertain, at the time when the sample is collected, exactly where the milk has originated, with full notes for the identification of the animals whose produce it is. If this information is not obtained at the time, it cannot readily be got when, after the lapse of three or four weeks, the bacteriologist reports that the sample contained tubercle bacilli. Another point which has been demonstrated is that a Veterinary Surgeon, however expert, cannot, without the aid of the bacteriologist, safely diagnose tuberculosis of the udder. This

has been observed several times in the work of one of the large County Boroughs in which we have occasionally co-operated in carrying out their "Milk Clauses." When they get a mixed sample of milk which proves to contain tubercle bacilli, they proceed to the farm with a Veterinary Surgeon who, after a clinical examination of the cows, attempts to decide which one has yielded the tuberculous milk. On several occasions a subsequent sample, taken by the County Health Department from a condemned animal, has proved to be free from tubercle bacilli.

The whole operation of testing the milk and eliminating tuberculous animals is fraught with many difficulties, and, in view of their experience, the West Riding Public Health and Housing Committee decided to encourage the taking of samples from individual cows chosen by Veterinary Inspectors, rather than a futile examination of mixed samples collected promiscuously and incapable of being completely followed up. Accordingly, in May, 1910, they issued the following Circular letter to the Sanitary Authorities of the West Riding. One of the results of this Circular (referred to later on page 62) was that the scheduled visits to cowsheds during the year totalled 9,288 instead of 5,453 as in the previous year.

Copy of Circular issued by the West Riding County Council to Sanitary Authorities.

THE MILK SUPPLY AND TUBERCULOSIS.

"The West Riding Public Health and Housing Committee have had under consideration the question of the sale, for human food, of milk containing the bacillus of tuberculosis, and they are desirous of encouraging and assisting the efforts of Local Sanitary Authorities to protect consumers from this danger. As your Authority is doubtless aware, the County Council have for several years undertaken to examine milk samples free of charge when submitted by Local Sanitary Officers on suspicion of containing tubercle bacilli, and by this means some notable results have been achieved. The Committee, however, desire to extend the effectiveness of the work in the direction of making bacteriological examination of samples of milk, submitted especially from Districts where regular Veterinary Inspection of Dairy Cattle is in vogue.

"Difficulties have however presented themselves owing to the absence in most instances of any systematic Veterinary Inspection of Dairy Cattle.

"When samples are submitted for examination which have been merely collected from Milksellers' cans there is great difficulty in getting to close quarters with the source of any contamination. Moreover, it is impossible on this system to collect and examine sufficient samples to afford an adequate check over the large area of the West Riding. It takes three or four weeks to confirm the presence of tubercle bacilli in such milk, and when that stage is reached a Veterinary Surgeon must be called in to examine all the cows whose produce might have formed part of the mixed milk on the occasion of sampling. If the Authority have made no provision for such Veterinary Inspection the result of the sampling may be rendered useless, and even if a Veterinary Surgeon is afterwards called in, he may fail to identify the tuberculous animal until he has submitted further samples taken individually from a number of cows with suspicious udders. In these circumstances the Committee feel that the best results would be achieved if each Authority would arrange

“for some form of Veterinary Inspection of Dairy Cattle to precede the taking of samples, and if such samples were then collected only on suspicion, and as far as possible from individual cows suitably identified on the labels. In several districts where this system is working it has been found that the periodic Veterinary Inspection (even if infrequent) has a more salutary influence on the hygiene of the cowsheds than is the case with promiscuous sampling among milk vendors.

“With regard to milk which though sold in your Authority's area is produced outside, it would be proper to submit occasionally for bacteriological examination samples obtained in the course of delivery, but the necessity for this proceeding will diminish in proportion as the various Authorities in the Riding institute Veterinary Inspection within their respective Districts.

“The County Committee trust that your Authority will appreciate the reasons in favour of this course and will co-operate with the County Council in the manner suggested, by making such arrangements as may seem practicable in the way of Veterinary Inspection of Dairy Cattle. If routine inspection is not deemed feasible at present, the Local Medical Officer might be authorised to call in the services of a Veterinary Surgeon to examine any particular cow suspected of yielding tuberculous milk.”

Housing.—This subject received a good deal of attention during the year, the following Government publications being carefully perused and reported to the Committee—

- (1) Circular from the Local Government Board dated 31st December, 1909, accompanied by printed Memorandum on the provisions of the Housing, Town Planning, etc. Act, 1909.
- (2) Circular and Order of the Local Government Board on Town Planning Regulations dated 3rd May, 1910; also Statutory Orders dated 11th January (2), and September 2nd (2), and November 19th.
- (3) Circular dated the 29th July, 1910, with Order prescribing the duties of County Medical Officers.
- (4) Circular dated 3rd September, 1910, enclosing the Housing (Inspection of District) Regulations 1910.

Most of these important documents are not addressed to County Councils, and although they closely affect the administration of the areas, the County Council were left to obtain some of them through indirect channels. To remedy this the Committee resolved to ask the Local Government Board to furnish them direct with copies of all Regulations, Orders and Circulars issued to local Sanitary Authorities.

On the 12th January, the Law and Parliamentary Committee reported fully to the County Council on the provisions of the Housing, Town Planning, etc. Act and the Council passed the following resolutions:—

That Standing Orders of the County Council Nos. 35 and 36 be amended by the substitution of the words “West Riding Public Health and Housing Committee” for the words “West Riding Sanitary Committee.”

That there be delegated to the West Riding Public Health and Housing Committee, in addition to the powers and duties heretofore delegated to the West Riding Sanitary Committee, all the powers and duties of the County Council under the Housing, Town Planning, &c. Act, 1909.

That the members of the County Council now constituting the West Riding Sanitary Committee be and are hereby appointed the members of the West Riding Public Health and Housing Committee.

Elsewhere in this report reference is made to the local action set up by the various Sanitary Authorities in the matter of Housing—action in which the County Health Department participated wherever possible. The broader aspects of the Housing question were frequently under consideration by the Public Health and Housing Committee, chiefly in connection with the remarkable expansion of the coal-mining industry in the south-east of the Riding. Several inspections were made by members of the West Riding County Council anxious to see for themselves the actual condition of things in this part of the Riding and to form a clear conception of the problem. Various memoranda and reports were submitted to the Committee showing the condition of things in each District. Communications were kept up with all the Sanitary Authorities concerned, and it was resolved to ask them for early information as to any action contemplated on Town Planning lines.

It was noted that, however willing a Rural Sanitary Authority might be to construct works of sewerage and water supply in parishes where land was to be laid out for a large number of houses, they were sometimes unable, owing to lack of borrowing power, to make adequate provision in anticipation of the needs. This difficulty was placed before the Local Government Board, and the Board stated that where the assessable value of a parish is expected to increase rapidly they saw no objection to the holding of a Local Inquiry with respect to a full and complete scheme of sewerage or water supply. If found suitable a general approval would be given and loans granted up to the limit of the borrowing powers, and subsequently additional loans could be sanctioned, without a further inquiry, as the assessable value of the parish increased.

Although several Model Villages are now in existence or in process of erection there has been, as yet, no "Town Planning" scheme in the proper sense. At Brodsworth, Edlington, Maltby, and other places the Model Villages owe their origin to the voluntary action of particular owners who have laid out their land on a regular system. In competition with any such voluntary scheme it is open to any neighbouring owners to build on an entirely different and incompatible arrangement, so long as the plans comply with the ordinary bye-laws. The result is that the small jerry-builder can easily put up houses in the vicinity and reap a considerable advantage over the promoters of the "garden city" schemes by reason of his freedom from the more costly

restrictions. To avoid this it would be necessary to schedule all the available land under a Town Planning Scheme—an impracticable procedure when dealing with so wide an area as the South Yorkshire Coal field. A proposal to achieve the same end by a comprehensive scheme of co-operation has been under discussion at several largely attended conferences held at Doncaster, the outcome of which, so far, has been that the Officers of the various Sanitary Authorities around Doncaster, are deputed to collaborate on a scheme. The President of the Local Government Board, the Home Secretary, and many other leading men are showing interest in the contemplated provision for this locality, but, meanwhile, as the Archbishop of York has pointed out, the door of opportunity is closing in many parts of the District.

Under Section 69 of the Housing, Town Planning, etc. Act, 1909, it is the duty of the Clerk of any Rural Sanitary Authority, wherever a formal representation is made that a house is unfit for habitation, to send a copy of such representation to the County Medical Officer; and, thereafter, from time to time, the County Authority is to be kept informed of the proceedings relating to such dwelling-house. The following table gives a list of the Rural Sanitary Districts in the Riding, the number of representations reported during the year, and certain particulars relating thereto:—

Rural Sanitary District.	No. of Houses represented as unfit for habitation during 1910.	Subsequent Notes.
Barnsley ...	—	
Bishopthorpe ...	—	
Bowland ...	1	No closing order made; attention promised by owner's agent.
Doncaster ...	6	No closing order made. Improvements carried out.
Goole ...	6	4 closed and vacated, 2 rendered habitable.
Gt. Ouseburn ...	—	
Halifax ...	1	Closing order contemplated.
Hemsworth ...	6	2 closed and vacated, 1 made habitable, 2 demolished and 1 to be rebuilt.
Hunslet ...	4	3 closed and vacated, 1 rendered habitable.
Keighley ...	—	
Kiveton Park ...	—	

Rural Sanitary District	No. of Houses represented as unfit for habitation during 1910.	Subsequent Notes.
Knarborough	—	
Leeds (Roundhay & Seacroft).	—	
Pateley Bridge	3	Vacated without Closing Order.
Penistone	1	do. do.
Pontefract	—	
Ripon	—	
Rotherham	—	
Sedbergh	—	
Selby	1	Rendered habitable.
Settle	—	
Skipton	—	
Tadcaster	6	3 ordered to be demolished, 2 rendered habitable, 1 closure contemplated.
Thorne	—	
Todmorden	—	
Wakefield	—	
Wetherby	9	3 ordered to be closed, and 6 to be demolished.
Wharfedale	—	
Wortley	—	

The County Sanitary Inspector visited most of the houses referred to in the above list, and communications passed between the County Council and the Local Sanitary Authorities regarding the various steps to be taken. Dr. Stedman, of Selby, points out that although the new law allows the Sanitary Authority to make Closing Orders, they have still to resort to the Magistrates to compel evacuation, and this is apt to prove almost as troublesome as the old procedure.

The County Health Department also took a close interest in the administration of the Housing Acts in the Urban areas of the Riding, but it is proposed to deal with that phase of the administration in Part III. of this report consisting of an abstract of the local medical officers' reports. (See page 57).

School Hygiene, etc.—A separate report by the County Medical Officer, in his capacity of School Medical Officer, deals with most of the phases of school hygiene along with the results of the medical inspection of school children. It cannot be too clearly stated that the local medical officers of health have not been relieved of any of their duties and responsibilities in regard

to the control of infectious sickness in schools. In town areas, where the school medical officer is on the spot, he naturally deals in that capacity with infectious outbreaks, but, in the West Riding Elementary Education area, it is essential that the local medical officers should maintain their interest in the schools. The function of the County Health Department is to advise and assist in that work and it will be seen from the following extract that, during 1910, very satisfactory relations were maintained. The extract is from the School Medical Officer's Report:—

“Whenever the School Medical Inspectors discover an infectious case in school the child is at once excluded, along with any ‘contacts’ where necessary, and information is sent to the local medical officer of health. This occurred 147 times during 1910. Wherever possible in these cases the School Medical Officer's Central Staff offers assistance to the Medical Officer of Health in making special investigations and formulating measures of precaution. Instances of this practical co-operation were very numerous during the year, but we are always careful to make it clear that in this work we are merely assisting and not supplanting the local health officer. In a similar manner the bacteriological laboratory is placed at the service of the Medical Officer of Health, and during 1910 a large proportion of the 6,663 swabs examined for the bacillus diphtheriæ were submitted in connection with school cases.”

“So far as statistics can indicate the part played by the Central Staff and the School Medical Inspectors, the following figures may be useful:—

“Visits to schools by Central Staff undertaken	
“specially in relation to the reported prevalence of infectious or contagious disease	84
“Throat swabs submitted to the Laboratory ...	810
“Hair and scales submitted to the Laboratory	
“ (Ringworm)	1196
“Scholars temporarily excluded from attendance	1726

Midwives Act.—As the County Council's area for this purpose includes all the 14 Non-County Boroughs a considerable amount of work devolves on the Health Department in supervising the 742 practising midwives. The routine visitation of these women is carried out by the County Medical Officer and his Assistants in the course of their other duties, the journeys being planned as far as possible to fit in with local investigations on general sanitary matters, school visits, etc. In this way 830 calls were made at the midwives houses during 1910, for the inspection of their books and outfits and for giving advice in regard to the carrying out of the Rules. Great improvement is shown by the midwives generally, although in 41 cases during the year it was necessary to follow

up the visits by letters calling special attention to minor faults of omission. Apart from this routine visitation, the Department had to deal with no less than 1270 statutory notifications received from midwives, as well as a large number of letters asking for advice on special points of conduct. In May, 1910, every midwife in the West Riding was supplied with a copy of the leaflet issued by the Central Midwives Board regarding the cause and prevention of blindness in the new-born child.

The usual table is appended showing the number and kind of notifications received from midwives, and it will be seen that there has been a further increase in the number of medical help notices. This indicates that there is a growing appreciation of the responsibility which a midwife incurs in attempting to deal alone with a case which is not entirely normal. It also completely falsifies the argument which was advanced in 1902 that the statutory recognition of midwives would interfere seriously with the midwifery practice of medical men.

1905. 1906. 1907. 1908. 1909. 1910.

Notifications of Sending for Medical Help	158	401	457	582	639	723
Notifications of Death of Child	32	75	67	64	59	68
Notifications of Death of Mother	3	9	12	4	7	4
Number of Inquests reported	11	30	38	35	48	46
Notifications of Still-Births ...	140	351	373	351	391	392
Notifications of Puerperal Fever	13	43	42	28	36	35
Notifications of other Infectious Cases	2	4	5	9	3	2

Death Notifications.—When a death occurs in a midwife's practice before the attendance of a medical practitioner, it is her duty to notify it to the Local Supervising Authority. Fifty such notices were received during the year, announcing the deaths of 46 children and 4 mothers. It was found necessary to hold inquests on 24 of the children, the Coroner being satisfied without inquests in the remaining 22 cases. In most cases it appeared that the midwife had promptly summoned medical aid, and that death took place before the arrival of the doctor. "Premature Birth" accounted for 18 deaths of children, "Natural Causes" for 8, while "Convulsions" and "Insufficient inflation of Lungs" were given as the causes of death in the remaining cases. Two midwives (S.A.W. 6412 and H.S. 14024) were requested to attend before the Chairman of the Public Health & Housing Committee, to explain their conduct in connection with fatal cases which had occurred in their practices. After considering all the circumstances, the Chairman decided that the cases would be met by a verbal caution from him.

The following were the recorded causes of death in respect of the 4 mothers:—Syncope from Hæmorrhage; Clot of blood in the heart; Heart Disease; Puerperal Septicæmia. The midwives connected with the first three cases were in no way to blame,

but in the last case the Coroner's jury returned the verdict that "Death was due to Puerperal Septicæmia aggravated by ignorance and neglect of midwife." The circumstances were fully considered by the County Committee, and reported to the Central Midwives Board, who eventually cancelled the midwife's certificate and removed her name from the Roll.

Puerperal Fever.—Every case of Puerperal Fever which comes to the knowledge of the County Health Department is at once enquired into. This year the midwives reported 20 cases, and 15 others were discovered through the medium of the Monthly Notification Summary. In connection with one of these latter cases the midwife (E.N. 26243) was interviewed by the Chairman and cautioned in regard to her failure to notify the case with promptitude. The conduct of midwife A.B. (8602) with respect to another case is referred to in the paragraph concerning Death Notices. In each case of Puerperal Fever, the midwife was suspended from work until she had carried out thorough disinfection of her clothing and outfit to the satisfaction of the local medical officer of health. The two other infectious cases also received attention on similar lines.

Infringement of Rules by Midwives.—It is satisfactory to record that out of the 742 certified midwives practising in the West Riding only 6 were formally reported to the Committee as having infringed the Rules of the Central Midwives Board. The following list gives brief particulars:—

6412.	Death of Child. Alleged neglect.	Censured.
18609.	Failing to notify calling-in of Doctor. Defective Outfit.	Censured.
2219.	Defective Outfit and untidiness.	Censured.
26243.	Concealment of Infectious case.	Censured.
8602.	Infectious Case. Serious neglect.	Reported to C.M.B. and struck off the Roll.
665.	Purulent Ophthalmia. Delayed obtaining medical aid.	Censured.

No. of Midwives.—Reference was made in last year's report to the New Rule B, sanctioned by the Privy Council, which permitted certain suitable women to become certified without examination. Altogether 54 women made application for enrolment to the Local Supervising Authority, whose duty it was to visit and report upon the merits of each case. Only 32 applications were sent to the Central Midwives Board as being eligible for enrolment, and of these 29 were granted certificates and 3 were refused. The effect of these accessions to the Roll was to arrest for a time the decline in numbers which had been going on from 1906 to 1909 as shown in the following table:—

1906. 1907. 1908. 1909. 1910. 1911.

Number of Midwives who gave formal notice of their intention to practise	...	...	848	788	757	717	746	730
Number of reported Deaths of Midwives	...	...	13	17	20	11	11	?

The Central Midwives Board are granting large numbers of certificates as a result of their periodical examinations, but comparatively few of these trained women take up practice as midwives in the West Riding Administrative Area. Of the 730 midwives mentioned in the above table only 55 hold their certificates by virtue of having passed the Board's examination. It would seem that most of the successful examinees in this part of the country go to the large towns, or else take up better class work entirely under doctors, so that they do not require to come on our lists. Several of the trained midwives who have set up to earn a livelihood here as independent midwives have reported that they can only get a few cases, as the patients who do not have a doctor seem to prefer the services of the old-fashioned untrained midwife belonging to their own social class.

The West Riding Nursing Association has been engaged for over two years in endeavouring to meet the varied needs of the Riding in the matter of maintaining midwives locally. At the close of 1910, the Executive Committee discussed suggestions for the extension of the work of the Association, the chief of which was the establishment of a Nurses Home in Leeds where "emergency" nurses could reside, and where additional experience could be had by District Nurses before beginning their work. This Home was formally opened in April, 1911.

Midwives Scholarships.—The West Riding Education Committee in 1910 granted four more scholarships to assist women in training for the examination of the Central Midwives Board, and three of the scholarship holders were subsequently trained at the Leeds Maternity Home. The Committee approved of the postponement of the fourth scholarship, owing to the candidate being unable to take up the course of training for several months. It is satisfactory to record that all the candidates who entered the Maternity Home have succeeded in satisfying the Examiners of the Central Midwives Board.

Uncertified Women.—The penal clauses of the Midwives Act, 1902, came fully into force on the 1st April, 1910, making it absolutely illegal for any person not certified under the Act to attend confinement cases habitually and for gain unless acting under the supervision of a qualified medical practitioner. Obviously the County Medical Officer, whose duty it is to supervise the certified midwives, cannot undertake to follow up and enquire into every case where an uncertified woman is alleged to have attended confinements. The County Committee carefully considered the position, and a circular letter of caution was drafted to be sent to

any uncertified women regarding whom information was received in the Health Department. This circular is issued from the Clerk's Department, and during the year particulars were sent to that Department in regard to 43 complaints received. If it is found that any of these women continue to practise after a letter of caution has been sent to them, full enquiries are made by the Police with a view to instituting legal proceedings. For this offence a woman at Thrybergh, near Rotherham was brought before the Court and fined 10/- and costs.

Sale of Food and Drugs Acts.—There is no necessity for a lengthy report upon this section of the Health Department, nor is there any need to give a list of the kind of samples purchased, seeing that the Public Analyst reports fully to the Committee every Quarter. It is true that the reports of the Analyst do not go to the 158 Sanitary Authorities in the Riding, and this is a point which is sometimes remarked upon by local officers. It should be stated, however, that each of those Authorities has the power to submit samples direct to the Analyst, in which case he reports direct to them. During 1910, only 34 of the District Councils availed themselves of this.

Altogether, 2844 samples were submitted for analysis, and of these 2340 were purchased by the County Council's Inspectors, acting under the supervision of the County Medical Officer. The remainder (504) were submitted by the local Sanitary Inspectors, and the majority of these (viz. 317) came under the arrangement by which the County Council bears the cost of analysis, and of all subsequent proceedings. For the third year in succession no samples were submitted by private purchasers.

QUARTERLY RECORD OF SAMPLES TAKEN DURING 1910.

DISTRICT.	INSPECTOR.	SAMPLES ANALYSED DURING 1910.				
		First Quarter	Second Quarter	Third Quarter	Fourth Quarter	TOTAL.
Barnsley ...	J. H. Bundy ..	57	68	54	49	228
Central ...	A. Ross ...	57	66	58	62	243
Harrogate ...	H. Gamble ...	64	74	57	68	263
Mirfield ..	H. Newbould ...	80	73	51	60	264
Pontefract ...	H. F. Wilkinson ...	72	26	50	87	235
Rotherham ...	J. Wilson ...	73	55	76	108	312
Shipley ...	J. Duce ..	62	64	61	64	251
Skipton ...	A. Randerson ...	78	79	74	78	309
Sowerby ...	E. Bell ...	62	58	52	63	235
Total Samples taken by County Inspectors ...		605	553	533	639	2340
Local Authorities ...	...	34	126	126	218	504
Private Purchasers ...	...	—	—	—	—	—
Total Samples Analysed ...		639	689	659	857	2844

The following table gives the record of samples for the past ten years, and it will be seen that the total number of samples examined during 1910 is the highest ever reported. For fuller details of these samples, and of the action taken upon those adulterated, reference must be made to the Public Analyst's reports as supplied to the County Council and Local Government Board.

RECORD OF SAMPLES FOR TEN YEARS, 1901-1910.

Year.	Total Samples submitted by			Total Examined.	Total Adulterated.	Percentage Adulterated.
	County Council.	Local Authorities.	Private Purchasers.			
1901	2247	407	...	2654	193	7.3
1902	2330	343	...	2673	151	5.6
1903	2303	265	...	2568	114	4.4
1904	2310	284	...	2594	81	3.1
1905	2329	342	2	2673	129	4.8
1906	2367	432	2	2801	122	4.3
1907	2294	400	1	2695	105	3.9
1908	2231	489	...	2720	138	5.3
1909	2276	463	..	2739	102	3.7
1910	2340	504	...	2844	111	3.9

Special attention has been given to milk-sampling during the year, and on one or two occasions surprise visits have been paid to certain districts. In all, the County Council's Inspectors purchased 845 samples of new milk, and of these 37 were reported as adulterated, viz.—27 contained added water (some had also been deprived of a portion of fat). 9 were found to be deficient in fat without the addition of water. 1 contained 4.9 grains Boric Acid per pint. Legal proceedings were instituted in 19 of these cases, and the average fine and costs imposed was £2 2s. 6d.

The appended table gives the average composition of the milks examined during 1909 and 1910.

	Total Samples analysed.		Genuine Samples only.		Adulterated Samples only.	
	1909.	1910.	1909.	1910.	1909.	1910.
Percentage of :—						
Total Solids ...	12.69	12.63	12.74	12.72	11.07	10.77
Solids other than Fat...	9.13	9.08	9.16	9.13	8.23	7.94
Fat ...	3.56	3.55	3.58	3.59	2.84	2.83

During the year the services of the County Council's Inspectors were utilized in collecting a number of special samples required by Officers of the Local Government Board in connection with investigations which the Board had in hand. These included 10 samples of "infant foods," and 37 samples of flour manufactured locally.

Poisons and Pharmacy Act, 1908.—Under this Act, which operated from the 1st April, 1909, the County Council are empowered to issue licences for the sale of certain poisonous preparations used exclusively for agricultural and horticultural purposes. The licences issued by the County Council number 22, and the County Medical Officer has been authorised to make inspections. When in the neighbourhood of premises licensed under this Act, the opportunity is taken of ascertaining whether the conditions of licence and the Statutory Regulations are being complied with. Nine such inspections were made during 1910, and suitable instructions were given with regard to the several minor infringements noted.

PART II.

THE WORK OF THE BACTERIOLOGICAL LABORATORY.

January 1st to December 31st, 1910.

The number of specimens received at the laboratory for examination during the year 1910 was 10,136. The following table shows the number of specimens of different kinds examined during the various months of 1910:—

MONTHLY RECORD OF SPECIMENS EXAMINED.

	Serum Reaction for Enteric Fever.	Sputum for Tubercle Bacilli.	Suspected Diphtheria.	Miscellaneous	Total.
January ...	38	65	554	150	807
February ...	44	67	537	143	791
March ...	44	86	670	154	954
April ...	34	75	402	155	666
May ...	98	63	420	153	734
June ...	31	85	310	203	630
July ...	42	59	757	151	1009
August ...	81	64	374	69	588
September ..	91	51	567	160	869
October ...	96	82	848	248	1274
November ..	73	76	717	147	1013
December ...	79	68	507	147	801
Total ...	751	842	6663	1880	10136

The next table gives the figures for 1910 in comparison with those for the previous four years:—

YEARLY RECORD OF SPECIMENS EXAMINED.

Year	Serum Reaction for Enteric Fever	Sputum for Tubercle Bacilli.	Suspected Diphtheria	Miscellaneous	TOTAL
1906	400	575	3259	408	4642
1907	300	583	3940	1073	5896
1908	574	694	3884	1212	6364
1909	638	825	5751	1996	9210
1910	751	842	6663	1880	10136

The figures for the year 1910 exceed those of the previous year by 926, the increase being chiefly due to the fact that each year practitioners are taking more advantage of the facilities afforded by the laboratory for the diagnosis of Diphtheria, Phthisis, and Enteric Fever. During 1910 biological examination was necessary in 99 cases, chiefly for the detection of the tubercle bacillus in specimens of urine and milk, and for the diagnosis of anthrax.

Diphtheria Examinations.—The total number of swabs examined for the presence of the Diphtheria bacillus was 6,663, compared with 5,751 in the previous year. The following table shows the number of swabs collected by the local medical officers of health and practitioners, by the School Medical Inspectors of the West Riding, and by the Central Staff of the County Health Department:—

Source of Specimen.	*Positive.	†Negative.	Total.
Local Medical Officers and Practitioners	1481	4372	5853
School Medical Inspectors	17	111	128
Central Staff	54	628	682
Totals ..	1552	5111	6663

*“Positive” signifies that the Bacillus Diphtheriæ was found.

†“Negative” signifies that the Bacillus Diphtheriæ was not found.

As a routine procedure the reports upon Diphtheria specimens are only given on the results obtained after cultural examination. Tubes of solidified serum from sheep’s blood are inoculated from the swabs and after incubation over-night a microscopic examination of the growth is made. The stain employed for this microscopic examination consists of 0.1 per cent. Toluidine Blue and 0.5 per cent. of Acetic Acid in distilled water. A drop of stain is placed on each film prepared from the culture and a cover-glass is immediately applied. After a minute or two the excess of stain is removed by pressing between two layers of blotting paper and the preparation is ready for examination. This method of staining is rapid and gives excellent results. Complete reliance cannot be placed on the result of microscopic examination of smears made directly from the swab, and therefore such examinations are only made at the request of the practitioner in urgent cases.

Although most of the specimens received at the laboratory are taken from the throat, a considerable number are taken from other parts, such as the nose, ear, eye, and skin. In the examinations of specimens from these parts great difficulty is expe-

rienced in giving a definite opinion owing to the fact that bacilli which cannot be distinguished from the Diphtheria bacillus by the ordinary routine examination are frequently present. In these cases it is necessary that a complete cultural and biological examination should be made, otherwise a patient may be subjected to unnecessary isolation.

Diphtheria Specimens Submitted by Local Medical Officers and Practitioners.—The specimens submitted by the local medical officers of health and medical practitioners include specimens from suspected cases of Diphtheria, from “contacts,” and from “convalescents.” One negative swab from a convalescent is not sufficient evidence that the patient is free from infection, as a subsequent examination may show that the bacillus is still present. It is advisable that the patient should be isolated until three successive negative swabs have been taken, the interval between the first and the last being about a week.

Diphtheria Specimens Submitted by School Medical Inspectors.—The School Medical Inspectors submitted for examination 128 specimens taken in the ordinary course of school inspection. In 17 of these a positive result was obtained.

Diphtheria Specimens Collected by the Central Staff.—The Central Staff of the County Health Department collected 628 specimens, 54 of which gave positive results. These specimens were taken in connection with investigations into outbreaks of Diphtheria occurring in schools. With the increasing work of the laboratory, it has become more difficult to examine at one time swabs from all the children in a large school without disorganising the other laboratory work. In order to overcome this difficulty, swabs are taken in the first place from the children in the infected class-rooms, and from any who have been absent on account of sore-throat. If a large number of these swabs give positive results, a subsequent visit is made to the school and the remaining children are examined. During the year epidemics involving eleven schools have been investigated in company with the local medical officer of health. In one school in which three cases of Diphtheria had occurred 27 children out of a total of 331 were found to be infective. Several of these had been away from school on account of sore throat, and undoubtedly had had mild attacks of diphtheria. The positive cases were isolated, and no further cases occurred. In another school one child was found with a slight nasal discharge, in which virulent Diphtheria bacilli were present. A sister had sickened during the summer vacation and was in the Isolation Hospital at the time of the investigation.

Diphtheria in Association with Scarlet Fever.—During the year 392 specimens were received from patients suffering from Scarlet Fever, in which the throat symptoms were suggestive of diphtheria. In 37, or 9.4 per cent of the specimens, the Diphtheria bacillus was found. The specimens were chiefly submitted by the Medical Superintendents of Isolation Hospitals.

Examination of Sputum for Tubercle Bacilli.—842 specimens of sputum were examined for the presence of the tubercle bacillus and in 275, or 32.6 per cent. a positive result was obtained. The number only exceeds that of the previous year by 17, but a considerable increase is to be expected as the result of the Public Health (Tuberculosis in Hospitals) Regulations, 1911, which require the notification to the Medical Officer of Health of cases of Phthisis occurring in General Hospitals. Considering the large number of specimens which were examined with negative result, it is to be regretted that very few of these were submitted for further examination. In many cases of Phthisis, particularly in the early stages, bacilli are not always to be found in the sputum by a single examination, and therefore a single negative result should not be taken as conclusive evidence in making a diagnosis. Success in the treatment of Phthisis largely depends on the early recognition of the disease, and towards that end it would be well that other specimens be sent for examination when the first examination proves negative.

Serum Diagnosis of Enteric Fever.—During the year 751 specimens of blood were examined for the Widal Reaction and a positive result was obtained in 246, or 32.7 per cent. The number of specimens exceeded the total of the previous year by 113, and for the first time since the establishment of the laboratory the number of specimens received exceeded the total of the notified cases of enteric fever. This fact shows that an increasing use is being made of the Widal Reaction, not only for purposes of actual diagnosis of the disease, but also in the detection of possible "carriers." In the detection of "carriers" the blood is first tested for the Widal Reaction, and in the event of a positive result being obtained specimens of urine and faeces are examined for the *Bacillus typhosus*. Many specimens were received from patients at a very early stage of the illness, before the specific condition had had time to develop in the blood. At this early period a negative reaction is frequently obtained, even in cases which ultimately prove to be enteric fever. In many of these cases, a further specimen taken after an interval of a few days would probably give a positive result. Too much importance should therefore not be placed on a negative result until the test has been repeated. In this connection it is the practice of the laboratory when reporting a negative result on a specimen of blood from a patient whose illness is stated to be of less than 14 days' duration, to request that a further specimen be submitted.

“ Miscellaneous ” Specimens.—The specimens included under this heading numbered 1880, and consisted of the following classes:—Ringworm 1,658, Milk 53, Urine 74, Faeces 16, Water 19, Anthrax 17, and other bacteriological and pathological specimens 43.

Ringworm.—During the year 1,658 specimens of hairs and scales were received for examination for ringworm, and the parasite was found present in 1,117. Of the total specimens 462 were collected by local Medical Officers of Health and Practitioners, 827 by the West Riding School Medical Inspectors, and 369 by the County Medical Officer's Central Staff. Of the Central Staff specimens 113 were submitted in connection with the special investigation undertaken by the School Medical Officer into the prevalence and control of ringworm in the Featherstone Schools.

Milk.—There were 53 specimens of milk submitted. Two of these were in connection with outbreaks of milk-borne enteric fever, and as was to be expected, they gave negative results. There is little hope of isolating the bacillus typhosus in milk, as owing to the long incubation period of enteric fever a considerable time must have elapsed before suspicion is directed to the milk, and the supply may only have been contaminated on a single occasion some weeks prior to the collection of the sample. It is much more important that a complete investigation should be made into the history of all illnesses occurring amongst those handling the milk in order to detect and isolate mild unrecognised cases which may have escaped notice.

The other milk specimens, 51 in number, were submitted by local Sanitary Authorities for examination for the Bacillus Tuberculosis. These consisted of 33 samples of milk from suspected cows, two of which proved positive, and 18 samples of mixed milk in one of which the bacillus was found. In the cases which proved positive administrative measures were put in force to remove the infected cows from the milk trade. As far as possible only samples from individual cows were examined. When mixed milks are examined, in the event of a positive result being obtained, great difficulty is experienced in tracing the infection to its source. As a rule, it takes about three weeks to give a definite report on a milk sample, by which time the vendor cannot say with certainty from what sources he obtained the milk. In addition to this, the biological experiment often ends in failure when mixed milks which may be a few days old are inoculated. The only circumstances under which mixed milks might be examined with advantage are when the samples are taken at the farms and from a known herd of cows. If a positive result is obtained, a subsequent examination of the herd and further sam-

pling would be more likely to result satisfactorily. As far as possible, all samples of milk should be taken so as to reach the laboratory on the day of collection, otherwise they should be packed in ice.

Urine.—During the year 74 specimens of urine were received for bacteriological examination. Of these, 25 were from suspected cases of tuberculosis of the urinary organs, and tubercle bacilli were found in three of the specimens. In each case a microscopic examination is made of the deposit obtained by centrifugalising the urine, and a provisional report is given on the result of this examination. Subsequently a final report is given on the result of biological examination. A negative result obtained by microscopic examination does not definitely exclude the possibility of tuberculosis, as the bacilli may be present in very scanty numbers. On the other hand, if the result is positive, various operative measures are indicated, and it is therefore desirable that the result should be confirmed by biological examination.

Forty-six specimens of urine were examined for typhoid bacilli, with negative result in each case. Most of the specimens were examined with the object of discovering typhoid “carriers.” but in some cases the examination was undertaken for purposes of diagnosis when the blood had been tested for the Widal Reaction with negative result. Examination of the urine is not a satisfactory method for diagnosis, as the bacillus is not invariably present in the urine of Typhoid patients. In many of these cases a further examination of the blood after an interval of a few days would probably have given a more conclusive result.

The other specimens of urine, three in number, were examined for the *Gonococcus*, *B. coli*, and cancer cells respectively.

Faeces.—Fourteen specimens of faeces were examined for *B. Typhosus* with negative result, and one for the Dysentery bacillus with negative result. The specimens for *B. Typhosus* were examined in the course of investigation of an outbreak of enteric fever supposed to be due to a carrier and occurring in an institution. Two specimens were examined for the Tubercle bacillus with negative result.

Water.—During the year 19 specimens of water were submitted for examination. Of these 10 were submitted for bacteriological analysis, four of which were found to be polluted. In each case suitable administrative measures were undertaken as the result of the examination.

Six specimens were from the Public Swimming Baths of one of the Non-County Boroughs, and were examined

at the request of the local Medical Officer of Health, with the object of determining the condition of the water after it had been in use a few days. As might be expected, the examination showed a great increase in the bacteriological content of the water compared with that of the water taken as it entered the bath.

Three samples of drinking-water were examined for *B. Typhosus* with negative results. As in the case of milk, and for the same reasons, the examination of water for *B. Typhosus* is unsatisfactory.

Anthrax.—The specimens submitted for examination for Anthrax numbered 17. Of these 11 were from human sources, five of which were found to contain the anthrax bacillus. Two of the positive specimens were from the same case. The others were from bovine sources, and three of them were found to be positive.

The positive human cases were:—

1. Male, aged 22, feeder of wool into a condenser at a mill.
Pustule on the forehead.
2. Female, aged 15, hanker at a mill.
3. Coachman. Pustule on the hand.
4. Male, aged 24. Pustule on the forehead.

The bovine specimens consisted of the ears or pieces of spleen of animals which had died suddenly. In these cases of sudden unexplained death occurring among bovines a specimen of blood from the ear should be examined before the carcase is opened, as it is difficult afterwards to be certain that all blood, etc., is thoroughly disinfected. When specimens of spleen are received they are usually from animals in which suspicion is only aroused on dressing the carcase.

Others.—The other miscellaneous specimens, 43 in number consisted of pleural fluid to be examined for the presence of tubercle bacilli, pus for various organisms, specimens of food for food-poisoning organisms, tissues for histological examination, and various specimens submitted by meat inspectors for bacteriological and histological examination. It is occasionally necessary to remind medical practitioners that the laboratory exists solely for Public Health purposes, the specimens being examined free of charge, and also that a stock of outfits is kept by each local Medical Officer of Health from whom they can be obtained as occasion requires. For this purpose a printed leaflet has been prepared showing the scope of the work undertaken and other particulars, and this is issued for the information of the practitioners newly resident in the district.

PART III.

ABSTRACT OF THE ANNUAL REPORTS.

The Administrative County of the West Riding underwent no change of area during the year, but an internal change (Dewsbury & Batley Extension) came into effect on the 1st April, 1910, and reduced the number of Sanitary Districts within the area from 162 to 158. For the purposes of this report the change is reckoned as having taken place at the beginning of 1910, thus securing statistical completeness without the necessity of showing separately a quarter's figures for the absorbed Districts of Ravensthorpe, Thornhill, Soothill Nether and Soothill Upper.

The full list of 158 Sanitary Districts is given in Tables 1, 2, and 3, at the end of this report. For each District the Vital Statistics are presented without any gaps, although in other respects the Annual Reports of the local medical officers of health are unfortunately not quite so complete. In this connection and in order to avoid misunderstandings, it may be well to call attention to the new position which has been created by recent legislation. It is now categorically laid down that the County Medical Officer must obtain from the local Medical Officer full information on points not adequately reported on, and the Act of 1909 makes it the duty of the local Medical Officer of Health to supply all such information, the County Council being empowered to recover a penalty in default. At the time of writing (July, 1911) three of the Annual Reports for 1910 have not yet arrived, and some of those which have been received were at first not sufficiently informative. In those cases where it was necessary for the County Medical Officer to ask for supplementary particulars these were immediately forthcoming with one or two exceptions which are now in hand.

The majority of the local Reports are exceedingly valuable documents compiled on the plan suggested by the Local Government Board in their new General Order, and it would be well if the whole of the reports followed the headings there set out. As it is, with the great number and variety of the reports, the County Medical Officer is unable to present a literal "digest" as required by the Board but has been compelled to retain the topical method of dealing with the large mass of material to be reported on.

Population.—Writing at the beginning of 1911, the local medical officers of health calculated the 1910 population of their respective Districts by a process of inference based on an old census enumeration. Since then the results of the 1911 Census have been published and in this report advantage has been taken

of the new figures to calculate retrospectively the population of each District at the middle of 1910. These revised estimates are given for every Sanitary District in Col. 3 of Table 1 (see end). The totals for the Administrative County are shown below:—

	Estimated population at the middle of 1910.	Area in Acres.	Persons per Acre.
Urban Districts (129) ..	1,185,908	377,124	3.14
Rural Districts (29)	316,082	1,296,426	0.29
West Riding Administrative County	1,561,990	1,673,550	0.93

Although in some Districts the new figures have falsified the pre-existing local estimates, it does not appear that the total population for the West Riding as a whole was wrongly estimated in recent reports of the County Medical Officer. It is therefore permissible to make a direct comparison between the mortality rates given in this report and those in the preceding reports.

West Riding Birth & Death Rates for Ten Years.—The following Table gives the Annual Rates for the West Riding Administrative County during the ten years 1901-1910.

	901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Birth-rate	29.5	28.7	28.5	27.7	27.1	27.0	25.8	26.7	25.7	25.5
Death-rate	16.9	15.8	15.6	16.5	15.2	15.4	15.3	15.2	14.4	13.9
Infant Mortality† ..	157	138	142	147	133	136	130	132	111	117
Zymotic Death-rate ..	2.14	1.53	1.49	2.19	1.45	1.93	1.39	1.55	0.95	1.07
Small Pox ,,	0.00	0.01	0.03	0.12	0.02	nil	nil	0.00	nil	nil
Scarlet Fever ,,	0.14	0.10	0.13	0.14	0.21	0.16	0.07	0.06	0.06	0.06
Diphtheria & Croup ...	0.25	0.17	0.17	0.17	0.17	0.18	0.17	0.15	0.13	0.13
Enteric Fever ,,	0.24	0.13	0.14	0.17	0.14	0.11	0.07	0.12	0.10	0.07
Measles ,,	0.18	0.62	0.20	0.49	0.18	0.35	0.42	0.29	0.22	0.21
Whooping Cough ,,	0.27	0.22	0.32	0.33	0.17	0.23	0.28	0.29	0.18	0.25
Diarrhœa ,,	1.04	0.28	0.50	0.77	0.56	0.90	0.38	0.64	0.26	0.35
Respiratory ,,	2.64	2.83	2.58	2.65	2.57	2.25	2.75	2.37	2.42	2.18
Phthisis ,,	1.00	0.99	1.02	1.01	0.94	0.95	0.98	0.97	0.88	0.79

† Deaths under one year per 1000 births.

Whooping Cough and Diarrhoea caused slightly higher death-rates in 1910 than in the previous year, and the effect of this is seen in the rate of Infant Mortality. Speaking generally, however, the rates for 1910 are very satisfactory and constitute an all-round low record which is very creditable to an area like the West Riding containing, as it does, so large an industrial element.

Birth Rate.—The number of births registered during the year was 39814, equal to an annual birth-rate of only 25.5 per thousand of the population, as compared with 25.7 in the previous year. The birth-rate for the whole country was only 24.8. This continued decline in the birth rate is seriously commented on in many of the reports as being a matter of national importance but it is not proposed to discuss it here. So far as the West Riding as a whole is concerned, the population is at present rapidly growing by immigration which more than compensates for the diminution in the rate of “natural increase,” *i.e.*, excess of births over deaths.

In Table 1 (see end) the birth rate is shown for each sanitary district, and as usual it is easy to see that if it were not for the Colliery Districts the County Birth-rate would be very much lower than it is. At places like Cudworth and Royston the birth-rate exceeds 40.0 per thousand, while the majority of the non-colliery districts show half that rate. In several Districts the birth-rate is no greater than the death rate.

Still Births.—These are not notified unless the Local Authority has adopted a special Act, and therefore no complete figures are available for the West Riding. In the few Districts where information is obtained the number of still-births in 1910 was 526. The midwives of the West Riding notified the occurrence of 392 still-births as compared with 391 in the previous year. In one or two Districts the Health Department makes a point of enquiring into still-births. Dr. G. H. Pearce reports from Batley as follows:—“The Health Visitor calls at the house of the mother with the object of discovering whether there was a reasonable probability of the child having been born at full term instead of prematurely. Appropriate advice is given respecting the management of the mother’s health during the later months of pregnancy, in the hope that a similar occurrence shall not take place in the future.”

Deaths.—There were only 21,712 deaths registered during 1910, and this number gives the remarkably low death-rate of 13.9 per thousand. As stated in last year’s report, these falling death rates are not entirely indicative of increased longevity except they are maintained for a period of years and relate to a community normally constituted as regards age. When the

details of the new Census are available it will be possible to apply to the above figure any correction which may be rendered necessary by the extent to which the West Riding population varies from the normal in age and sex distribution.

The unreliability of a single year's death-rate as an index of health conditions is still greater when individual sanitary districts are considered, especially when the district is a small one. For example in Table 1 (see end) the Urban District of Gunthwaite with Ingbirchworth shows a death-rate of 8.0 while Holme registers 20.5. In the previous year the position was exactly reversed, viz., Gunthwaite 20.7, Holme 7.3. Excluding these small districts and bearing in mind the liability to local disturbances, there is some interest in comparing the various death rates in Table 1, and it will readily be noticed that the high death-rates are usually found alongside the high birth-rates and the high infantile mortality rates. During 1910 the Urban District of Royston has the distinction of the highest death-rate (23.0) and the highest infant mortality (207) in the West Riding, if we exclude from the comparison the sparsely populated districts of the kind just mentioned.

As regards the scheduled causes of death during 1910, Table IV., which follows, gives particulars and also divides the deaths into groups according to the ages of the deceased.

It will be observed that the gross total of Table IV. is fewer by 524 than the figures on which the County Death-rate has just been calculated. This is due to the Medical Officers' practice of excluding from the detailed tables certain deaths of strangers or 'non-residents,' and their failure at the same time to include all the deaths of their own people who died across the boundaries of their District. The Registrar General and the Medical Officer of the Local Government Board have recently evolved a scheme whereby this leakage from vital statistics will, it is hoped, be avoided by a uniform system of transferring non-resident death-returns and definitely assigning them to their proper areas.

Urban and Rural Statistics.—Nearly one fourth of the population of the Riding is located in the "Rural" Sanitary Districts, and it is customary to contrast, as in the Table on page 32 the vital statistics, of the Royal Areas with those of the Urban Centres. It should be remembered, however, that the Rural Districts include a considerable mining population housed in large villages which have little of their rural character left.

"TABLE IV."

Table showing the causes of deaths in the West Riding Administrative County during the year 1910:—

CAUSES OF DEATH.	AGE AT DEATH.						All ages
	Under 1 Year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	
Smallpox	—	—	—	—	—	—	—
Measles	85	221	20	—	—	—	326
Scarlet Fever	3	44	35	10	4	—	96
Whooping Cough	209	138	13	1	—	—	391
Diphtheria (including Memb. Croup)	7	115	81	3	2	—	208
Croup	2	22	3	—	—	—	27
Typhus Fever	—	—	—	—	—	—	—
Enteric Fever	—	2	12	25	64	3	108
Other continued Fevers	—	—	—	—	—	2	2
Epidemic Influenza	6	7	10	10	95	71	199
Cholera-	—	—	—	—	—	—	—
Plague	—	—	—	—	—	—	—
Diarrhœa	381	135	1	1	9	13	540
Enteritis	153	51	5	4	20	14	247
Gastritis	39	17	—	2	16	13	87
Puerperal Fever	—	—	—	9	44	—	53
Erysipelas	9	3	—	—	19	8	39
Phthisis (Pulmonary Tuber- culosis)	12	32	72	263	791	4	1234
Other Tuberculous Diseases ...	165	237	105	58	122	14	701
Cancer, malignant disease ...	3	3	6	16	820	497	1345
Bronchitis	431	203	15	10	369	748	1776
Pneumonia	412	413	70	66	433	191	1585
Pleurisy	3	4	2	3	27	12	51
Other diseases of Respiratory organs	41	35	11	3	59	29	178
Alcoholism, Cirrhosis of Liver	—	—	1	—	131	19	151
Venereal Diseases	24	1	—	—	7	2	34
Premature Birth	907	—	—	—	—	—	907
Diseases and accidents of parturition	23	—	—	20	130	—	173
Heart Diseases	21	8	60	74	1155	890	2208
Accidents	53	92	73	90	289	95	682
Suicides	—	—	2	23	140	26	191
All other causes	1652	400	218	204	2112	3055	7641
ALL CAUSES	4641	2213	815	895	6858	5766	21190

	Annual Rates per 1,000 of the Estimated Population.					Infant Mortality (Deaths under one year per 1,000 Births)
	Birth-rate.	Death rate	Death-rate Zymotic	Phthisis Death-rate.	Respiratory Death-rate.	
(1) Urban Districts (129) in the West Riding	24·6	13·7*	1·07	0·84	2·21	119
(2) Rural Districts (29) in the West Riding	28·7	13·4*	1·10	0·65	2·14	110
(3) West Riding Administrative County	25·5	13·9	1·07	0·79	2·18	117

* Excluding Asylum Deaths.

Infant Mortality.—The deaths of babies under one year of age numbered 4641, this being at the rate of 117 per thousand births, as compared with a rate of 111 in the previous year. The last-mentioned rate was, however, phenomenally low, and it will be seen from the Table on page 28 that the 1910 rate of 117 compares very favourably with all records previous to 1909.

The following table may be of use in comparing the infant mortality of 1909 and 1910. It shows that in each classification, with the exception of “convulsions” and “tuberculous diseases” there were more deaths in 1910 than in 1909.

Grouped Causes of Infant Deaths.	No. of Deaths.		Ratio per 1,000 Births.	
	1909.	1910.	1909.	1910.
Wasting diseases	1777	1811	44·6	45·5
Diarrhœal diseases	499	573	12·5	14·4
Convulsions	452	397	11·3	10·0
Bronchitis	410	431	10·3	10·8
Pneumonia	370	412	9·3	10·4
Common Infectious diseases ...	221	304	5·6	7·6
Tuberculous diseases	219	174	5·5	4·4
Other causes	496	539	12·4	13·5
Total deaths under 1 year of age	4444	4641	111·5	116·6

The next table shows that the increased fatality among infants during 1910 was entirely confined to the first six months of life.

Age Distribution of Infant Deaths.	No. of Deaths.		Ratio per 1000 Births.	
	1909.	1910.	1909.	1910.
Under 1 week	1092	1111	27.4	27.9
1 to 2 weeks	208	234	5.2	5.9
2 to 3 „	206	245	5.2	6.2
3 to 4 „	176	160	4.4	4.0
Total under 1 month ...	1682	1750	42.2	44.0
1 to 2 months	246	476	10.7	12.0
2 to 3 „	340	351	8.5	8.8
Total under 3 months...	2448	2577	61.4	64.8
3 to 6 months	759	827	19.0	20.8
6 to 9 „	656	639	16.5	16.0
9 to 12 „	581	598	14.6	15.0
	4444	4641	111.5	116.6

In Table V, which comes next, the available figures are fully displayed to show the number of infant deaths under each cause and at various ages from one week to 12 months. It is practically an enlargement of the two preceding tables.

Table V. WEST RIDING ADMINISTRATIVE COUNTY.
 INFANTILE MORTALITY DURING THE YEAR 1910.
 Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.		Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Totals Dseath under One Year.
i. Common Infectious Diseases.	Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles	1	...	...	...	1	...	...	1	...	6	4	10	17	13	18	15	85
	Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	2
	Diphtheria (including Membranous Croup)	...	...	...	...	...	...	...	...	...	...	...	...	3	1	1	2	7
	Whooping Cough	...	...	4	1	5	28	24	15	18	19	19	14	16	14	19	18	209
	<i>Total</i>	1	..	4	1	6	28	24	16	18	25	23	25	36	29	39	35	304
ii. Diarrhoeal Diseases.	Diarrhœa, all forms	...	1	10	7	18	42	43	43	37	42	23	30	27	24	28	24	381
	Enteritis, Muco-enteritis, Gastro-enteritis	...	...	3	6	9	20	13	20	15	22	15	8	6	9	9	7	153
	Gastritis, Gastro-intestinal Catarrh	...	1	2	3	6	6	5	3	6	3	2	2	1	1	2	2	39
	<i>Total</i>	...	2	15	16	33	68	61	66	59	67	40	40	34	34	39	33	573
iii. Wasting Diseases.	Premature Birth	639	81	65	40	825	54	14	5	5	1	2	...	...	...	...	1	907
	Congenital Defects	120	34	20	9	183	17	14	8	2	7	1	5	1	2	2	...	242
	Injury at Birth	28	6	...	1	35	...	...	...	...	...	...	...	...	...	...	..	35
	Want of Breast-milk, Starvation	3	...	4	1	8	9	2	5	1	1	...	...	...	...	...	...	26
	Atrophy, Debility, Marasmus	148	45	55	35	283	96	57	40	31	27	15	7	18	6	7	14	601
	<i>Total</i>	938	166	144	86	1334	176	87	58	39	36	18	12	19	8	9	15	1811
iv. Tuberculous Diseases.	Tuberculous Meningitis	...	...	1	2	3	2	6	6	7	4	3	1	5	14	4	6	61
	Tuberculous Peritonitis: Tabes Mesenterica	...	...	...	2	2	4	7	9	11	5	6	2	3	6	8	2	65
	Other Tuberculous Diseases	1	1	3	...	5	2	3	5	6	3	1	3	5	7	2	6	48
	<i>Total</i>	1	1	4	4	10	8	16	20	24	12	10	6	13	27	14	14	174
v. Other Causes.	Erysipelas	...	1	...	...	1	4	1	1	...	...	...	...	1	...	...	1	9
	Syphilis	...	...	3	5	8	5	3	3	4	...	...	1	1	...	...	1	26
	Rickets	...	...	...	...	...	...	...	2	...	...	2	4	2	1	6	2	19
	Meningitis (<i>not Tuberculous</i>)	3.	...	1	2	6	3	7	5	8	10	10	10	10	4	3	7	83
	Convulsions	74	27	26	17	144	56	41	21	19	25	21	22	10	13	8	17	397
	Bronchitis	4	6	17	13	40	48	48	47	36	36	34	30	23	39	22	28	431
	Laryngitis	...	...	1	...	1	1	...	...	...	1	1	2	...	..	1	...	7
	Pneumonia	2	5	6	5	18	29	38	32	36	40	36	38	38	33	40	34	412
	Suffocation, overlying	9	1	1	1	12	11	6	3	3	...	...	...	..	1	...	...	36
	Other Causes	79	25	23	10	137	39	19	21	18	17	24	17	26	20	10	11	359
	<i>Total</i>	171	65	78	53	367	196	163	135	124	129	128	124	111	111	90	101	1779
Grand Total for Administrative County		1111	234	245	160	1750	476	351	295	263	269	219	207	213	209	191	198	4641

In Table I, which is folded at the end of this report, there is shown (col. 22) the rate of infant mortality for each Sanitary District in the Riding. If a list be prepared from that table comprising only the districts having a notably excessive rate, it will be found that such list consists for the most part of the colliery districts. Royston heads the list of these colliery places with a mortality rate of 207, Ardsley 199, Darton 179, Dodworth 165, Bolton-on-Dearne 163, Hoyland Nether 154, Barnsley 154, and so on. It is needless for the purpose of this report to follow the list further, or to investigate the conditions in each district. The local reports go very thoroughly into this matter and arrive at the conclusions which have been so often given,—namely, that this waste of life is to a large extent preventable. The accounts given of the unsuitable environment of children, errors of diet, faults of clothing and neglect of simple hygienic rules make one marvel that four out of five children manage to survive for a year. Dr. Sadler (Barnsley) in stating that want of care is responsible for some of the infant mortality, points out that in the mining districts, where people marry young and have large families, there cannot be the special care for the individual child which is natural where the number of children is few. Dr. Sadler adds,—“This is deplorable when we consider that the “lives which are eliminated are not necessarily the lives that “would have been the least value to the world, and that the “weakest physically are not always the unfittest to survive.”

Among the districts with a very high rate of infant mortality during 1910 there are some which are not colliery districts and have not the excuse of large and crowded families nor have they suffered from epidemic disease. Thus in the Bishopthorpe Rural District there were 45 births and 10 infant deaths; at Thurstonland 16 births and 4 infant deaths; Denholme 42 births and 8 infant deaths.

As regards organised efforts to reduce the rate of mortality among infants the reports contain evidence that the Authorities are becoming more and more alive to the possibilities in this direction. The Notification of Births Act has been adopted in 12 districts, viz.—Batley, Dewsbury, Doncaster, Featherstone, Heckmondwike, Horsforth, Keighley, Liversedge, Morley, Shipley, Stanley and Wakefield. In quite a large number of other districts the adoption of the Act is recommended, and the only hesitancy seems to arise from the cost of employing a Health Visitor or of making similar arrangements for taking full advantage of the Act. A properly appointed Health Visitor forms part of the staff at Batley, Brighouse, Dewsbury, Doncaster, Featherstone, Keighley, Liversedge, Shipley, and Wakefield. Elsewhere in many districts arrangements are in vogue for the visiting of homes by District Nurses, Voluntary Visitors, Guilds of Help, etc., and these agencies are employed by the Sanitary Authority to distribute pamphlets on the Care of

Infants, to advise on simple home rules and to call in the medical officer of health to cases where his attention is needed. Among others, the reports for Rawmarsh, Bolton-on-Dearne, Mexborough and Castleford contain a recommendation that Health Visitors should be appointed, and it is to be hoped that this course will be adopted. At Rawmarsh, Dr. Menzies writes,—
 “The prospect of a health visitor, for some unaccountable
 “reason, appears to be viewed with considerable suspicion that
 “she would be infringing on the rights of people to bring up their
 “children as they please.”

Zymotic Diseases.—The Table on page 28 shows that the mortality from zymotic diseases during 1910 was very low when compared with any previous year except 1909 when it was abnormally low. Altogether there were 1669 deaths from zymotic diseases in 1910, and it will be seen from the following Table that more than three-fourths of these deaths were caused by the non-notifiable diseases.

Zymotic Disease.	No. of Cases 1910.	No. of Deaths 1910.	Ratio of Deaths.	
			<i>a</i> per 1000 persons attacked.	<i>b</i> per 1000 persons living
(1) Small Pox ...	—	—	—	—
(2) Scarlet Fever ...	5275	96	18·2	0·06
(3) Diphtheria and Mem- branous Croup ...	1721	208	120·9	0·13
(4) Typhus, Enteric and Continued Fevers	636	108	169·8	0·07
(5) Measles ...	Not notified	326	?	0·21
(6) Whooping Cough ...	„	391	?	0·25
(7) Diarrhœa ...	„	540	?	0·35
Total of Chief Zymotic Diseases ...	?	1669	?	1·07

The corresponding zymotic death-rate is shown separately for each sanitary district in Col. 19 of Table 1 (see end) and here again Royston heads the list with a rate of 4·4. Other high-rates, and the causes which led to them, are as follows:—

Bolton-on-Dearne ...	2·9	Measles and Diarrhœa.
Barnsley Rural ...	2·9	„ „ „
Doncaster Rural ...	2·8	Measles, Diarrhœa, Whooping Cough.
Barnsley Boro ...	2·6	Whooping Cough & Diarrhœa.
Worsborough ...	2·5	Measles.

Small-Pox.—No case of this disease was notified in the Administrative County during 1910, but the possibility of its being imported was kept in mind by the Medical Officers of Health, and the reports contain many grave warnings as to the loss of life and money which would be entailed by an epidemic now that an increasing proportion of the population is unprotected by vaccination.

Scarlet Fever.—The total number of cases notified was 5275, and of these only 96 proved fatal, giving a very low death-rate of 0.06—practically the same figure as in each of the previous three years. Although the year 1910 will therefore rank on the whole as one of low prevalence, there was a number of sharp local epidemics, and towards the end of the year the figures seemed to show that the general Scarlet Fever curve was again on the rise. The numbers of cases and deaths for each District are given at the end of this report (Tables 2 and 3), and it will be seen that the following are among the places with the highest incidence of Scarlet Fever during 1910,—Barnoldswick, Bolton-on-Dearne, Earby, Keighley, Mexborough, Ossett, Royston, Shelf, Skipton, Stainland, Swinton and Todmorden.

However various may be the channels by which Scarlet Fever can be spread, there seems little doubt in the minds of most reporters that the chief means of dissemination in 1910 was personal contact. Time after time inquiries into the cause of a batch of notified cases led to the discovery of earlier recovered cases which had never been recognised and which had undoubtedly served as direct foci of infection among their associates. When the disease broke out at Cumberworth, no medical man was called in, and so the cases were not notified until epidemic proportions were reached. Dr. MacGregor thinks that some of the parents knew well the nature of the disease. At Todmorden the Health Committee took proceedings in one case where a child with scarlet fever was allowed to mix with other children. At Barnoldswick and several other places children were found in School whilst peeling from scarlet fever. At Skipton, Dr. Atkinson had reason to suspect milk-borne infection and took measures accordingly, but he adds that the subsequent course of the prevalence led him back to the opinion that personal contact was the cause of the widespread distribution.

Dr. Scatterty of Keighley, after giving some striking examples of the way in which the disease spread through several families by direct contact owing to inter-visiting which had been strictly prohibited, writes,—“The miserable tale might be prolonged but it would be merely like links of the same chain, “ignorance, indifference, and wilful neglect.”

From time to time the assertion is made that hospital isolation is ineffective as a means of preventing the spread of scarlet fever; and certainly the good which can be accomplished in this

direction is much discounted so long as unrecognised mild cases are left at large. But the very fact that such cases have the power to disseminate the disease is really an argument for their isolation. Dr. Sadler, who has had a large experience in the working of the Kendray Hospital, quotes the Barnsley statistics in favour of hospital isolation, and adds--“Not only has the death-rate decreased, but the actual prevalence seems to have already diminished.” At the Keighley Hospital, Dr. Scatterty found that, of the 396 cases admitted as scarlet fever, 34 had diphtheria bacilli in their throats. Altogether there were 3819 cases of scarlet fever isolated in the various Hospitals of the West Riding during 1910, as against 3,440 in the previous year.

At Earby in the latter half of the year all cases were treated at home and the Sanitary Authority engaged a nurse to see to the swabbing of throats with carbolic oil and inunction of eucalyptus oil. Dr. Falconer writes,—“The results of this treatment were so satisfactory that I advocate giving it an extended trial, with the regular provision of the nurse, which ensures thoroughness besides having a beneficial effect in educating the people to more sanitary methods and increased cleanliness in their homes.” At Barnoldswick, Dr. Alderton tried similar treatment in the hospital and only detained the patients for about a fortnight. He writes,—“I am not prepared to give a definite opinion as to the success of that method yet, as a sufficient number of cases have not yet been so treated. Up to the present no return cases have come under my notice after it. I think it is well worth an extended trial as it will increase the usefulness of the present Hospital greatly, lessen the period of isolation, and if what is claimed of it (viz., the prevention of return cases) proves correct, will solve a difficulty which ordinary isolation has failed to do.”

Diphtheria.—As was remarked in the last report, the gross statistics relating to this disease have shown little variation for nearly ten years, although, of course, the local centres of greatest prevalence have changed from time to time. During 1910, cases were notified to the number of 1721, and it will be seen from Table 3 (Col. 4) that very few Districts were entirely free from cases. The total deaths were 208, which gives the same death-rate as in the previous year, viz., 0.13 per thousand of the population. The prevalence was pretty evenly distributed throughout the year, the minimum being from May to August.

The largest number of cases occurred at Goole, where during recent years great efforts to keep the disease under control have been made by Dr. Erskine, who writes as follows:—“In September and October the disease threatened to overtake us, and I made a special report to the Council for the services of a nurse specially qualified to do this work; the request was acceded to and the result was most gratifying. The nurse was engaged for three weeks from the 7th October. She visited the three

“ Schools daily and the contacts at home as well as the homes of the cases notified. She visited 98 houses, and took 111 swabs, 12 of which were returned as positive.”

Relatively high attack-rates were also experienced at Batley, Dodworth, Gomersal, Hebden Bridge, Mirfield, Mytholmroyd, and Rothwell, as well as in the Rural Districts of Hemsworth, Rotherham and Sedbergh. There were only one or two instances of smart outbreaks, the general experience being a persistently regular occurrence of a few cases at short intervals throughout the whole year in spite of determined efforts on the part of local medical officers of health to wipe out the infection. The blame for this state of things is attributed by most of the reports to the mischief caused by mild undiscovered cases, and by “carriers” whose discovery and elimination constitutes the chief difficulty in arresting the spread of diphtheria.

As mentioned elsewhere, the services of the County Health Department, and particularly of the bacteriological laboratory, were freely utilised during the year in connection with local investigations as to the channels by which diphtheria was being spread. Special visits were made to schools and other premises at Drax, Hebden Bridge, Ravensthorpe, Thornhill, Mirfield, Sowerby Bridge, Gomersal, Greetland, Treeton, Cross Gates, Giggleswick and Dacre. In connection with these and similar investigations, a very large number of swabs were collected from the throats of scholars.

When a swab from the throat of an apparently healthy scholar is found to contain the bacillus of diphtheria, it is the custom in some districts to remove the child to the Isolation Hospital. In other places it is regarded as sufficient if the case is excluded from school, and kept under observation at home. Dr. Atkinson, of Settle, has found it necessary to draw up a sheet of instructions for parents in cases of diphtheria carriers, and, as the same plan may be useful elsewhere, a copy is reproduced here:—

“ Instructions for Parents in Cases of Diphtheria Carriers.”

“ A microscopical examination of a culture from the throat of your child shows the presence of diphtheria germs. The child may not feel sick but diphtheria germs are dangerous to anyone having them in the throat, and to others as well.

For the safety of the child and other members of the family you should have your doctor use something to destroy the germs now in the throat. *Do not* take the child to the doctor; call the doctor in or see him yourself. Cultures will be taken from the throat to tell when it is safe.

“ For the safety of the neighbourhood, the Sanitary Authority will require the child to remain in the house until the throat is free from germs. Other persons living in the house can go in and out, but it is not desirable that the other children of the family should attend School. Neighbours and friends must be kept out of the house. No milk cans must be brought into the house.

“ These regulations must be observed until notice has been received from your own doctor that the throat is no longer infectious.”

On the 15th August the Local Government Board made an Order sanctioning the provision by Sanitary Authorities of a supply of Diphtheria Antitoxin for any of the poorer inhabitants who may be attacked by diphtheria. Each Council was asked to make the necessary arrangements and bring them to the knowledge of the medical practitioners so as to secure prompt treatment by antitoxin and the saving of life which may thereby be effected. It is satisfactory to find that the great majority of the Authorities at once availed themselves of the Order and made the necessary arrangements on various plans. In some Districts the store of antitoxin is kept in the hands of the medical officer of health or Sanitary Inspector or at the Police Station. In other Districts the medical practitioners are supplied with requisition forms which, when duly filled up and taken to specified pharmacists, are exchanged for the requisite amount of antitoxin free of charge. Several of the medical officers express their satisfaction that this provision has been made, and it does not appear that there has been any tendency to misuse the concession.

Enteric or Typhoid Fever.—Total cases notified 629. Total deaths 108. These figures are almost the lowest ever recorded in the West Riding. To some extent we have to thank the weather conditions for this result, for, as several of the reports point out, a cold wet summer seems to be a safeguard against those serious outbreaks which tend to recur in Districts where privy middens and unpaved back yards are common.

During 1910 practically half the total cases occurred in a small number of Districts as follows:—

Barnsley Borough.—23 cases, 7 deaths. The number of cases here was smaller than usual, but this was made up for by the severity of the cases. Dr. Sadler says,—“The probability seems “to be that under the cold and wet conditions of the past year, “the Typhoid organism is unable to multiply outside the human “body unless it is of a particularly virulent variety.”

Bolton-on-Deane.—17 cases, 1 death. “The first batch comprised ten cases and undoubtedly had its origin in insanitary “conditions obtaining in the workings of the Hickleton Main “Colliery. The second batch comprised two cases living in the “same house, with a very insanitary yard, among filthy people. “The third batch, an isolated case occurring in an isolated “Cottage and probably caught from a “carrier” residing in the “same cottage. The fourth batch comprised four cases, all living “in the same house, the disease being brought no doubt by a “lodger who worked at the Thurnscoe Sewage Outfall Works.”

Castleford.—26 cases, one death. Various causes are assigned for the different outbreaks, the chief one probably being unpaved and insanitary back yards and other defects in and around the infected houses.

Featherstone.—9 cases, no deaths. Said to have been sporadic cases.

Liversedge.—12 cases, 2 deaths. Sporadic cases spread over a wide area and no known cause found.

Mexborough.—25 cases, one death. Epidemic among consumers of milk from a farm outside the District, where cases of Enteric Fever had occurred.

Morley.—36 cases, 4 deaths. All the houses with one exception had privy middens, and steps were taken to have most of them converted to water closets.

Normanton.—9 cases, no deaths. Limited to two or three houses, and spread by personal infection among inmates.

Pontefract.—7 cases, 2 deaths. Medical Officer of Health advocates the abolition of privy middens, and the paving of back streets and yards.

Rothwell.—15 cases, 2 deaths. “Nearly all the cases were “of sporadic origin and supervened upon a previous illness.”

Todmorden.—13 cases, 4 deaths. Said to have been entirely sporadic cases.

Whitwood.—23 cases, no deaths. Nearly all in the Hightown area in association with privy middens, unpaved yards and streets, and other sanitary defects.

Worsborough.—23 cases, 3 deaths. Nearly all at Worsborough Common where 8 cases and two deaths occurred in one house. Dr. Banham remarks “This is an example of the disease “spreading by personal contact or perhaps it would be more “correct to say by careless nursing.”

Hemsworth Rural.—44 cases, 3 deaths. Chief outbreak was at South Elmsall in a congested and overcrowded area where defective scavenging, scarcity of water, contaminated yards and other causes were in evidence.

Tadcaster R.—39 cases, 13 deaths. Chief outbreak was at South Milford and Gascoigne Wood. Defective water supply abandoned.

Rotherham R.—21 cases, 6 deaths. Some of the cases associated with privy middens. Otherwise no epidemic incidence.

In most of the above-mentioned outbreaks, as well as in other smaller outbreaks not mentioned above, the services of the County Health Department were requisitioned, either in diagnosing cases, searching for the source of infection, or formulating measures of precaution. As mentioned in Part II. of this Report 751 specimens of blood were submitted to the Widal test in the County Bacteriological Laboratory. In connection with a small outbreak among the female servants at a boarding school we undertook the examination (with negative results) of 61 specimens from inmates, with the idea of finding a possible "carrier." When investigating a milk epidemic in another district we were able to demonstrate that the dairyman's blood gave a positive reaction although he denied having been ill. It is perhaps worth repeating here that, when water or milk is suspected of having acted as a vehicle of infection, the proper line of investigation is to search, not for the bacillus in the water or the milk, but for the channel by which the liquid became contaminated. In milk-borne epidemics it will nearly always be found that some person connected with the production or distribution of the milk has suffered or is suffering from the disease; and it is a simple matter to test the blood of those who have handled the milk during or after an indefinite illness which may have been typhoid fever.

Diarrhœa.—The 540 deaths classified under this heading include those registered as due to epidemic enteritis, summer diarrhœa, cholera nostras, and similar diseases which flourish best in hot weather, when contamination and putrefactive changes threaten the food supply especially of infants. During 1910 we only experienced a medium prevalence of these diseases compared with the records of hot summers. Nevertheless the death roll was five times as great as that caused by scarlet or enteric fever. A great part of such loss of life should be preventable even in a much hotter season than 1910, but this would require a better standard of home sanitation, better environment in congested areas, and a more careful observance of hygienic rules in the preparation and storage of food.

Of the 540 deaths, more than 500 occurred in children under five years of age, and as illustrating the connection between Urban conditions and diarrhœa it may be mentioned that half of the deaths occurred in the following 13 districts most of which possess to some extent conditions of housing or environment characteristic of a coal-mining population. Barnsley 57 deaths, Castleford 35, Doncaster R. 51, Featherstone 10, Goole 14, Hoyland Nether 13, Morley 14, Normanton 11, Pontefract 11, Pontefract R. 18, Rawmarsh 13, Wombwell 18, Worsborough 10

Many of the reports refer to flies as agents for the dissemination of summer diarrhœa, and Sanitary Authorities are urged to attack the evil by continuing the policy of abolishing privy

middens, draining and paving back streets and yards, and improving the methods of refuse disposal and removal. In the Goole report Dr. Erskine writes:—"Until we receive our new sewerage scheme it is impossible to prevent this, remembering that of the total number of houses 3830 have box closets and only 710 water closets. As surely as another hot year like 1904 comes round, so surely will our deaths from summer diarrhoea mount up."

Measles and Whooping Cough.—These two diseases of childhood were almost equally prevalent in the West Riding throughout the year, but the loss of life was about the average, viz. 326 deaths from measles, and 391 from whooping cough. Of the combined total (717) only thirty four were more than five years of age. The loss of 24 lives in Royston (measles) and 53 in Barnsley (Whooping Cough) are among the most striking items in Table 2 (see end).

It is practically safe to assert that personal contact is the means by which both these diseases are spread and that safety demands the early detection and isolation of sufferers. Many of the reports lament the difficulty of doing this, even in places where the diseases have been made compulsorily notifiable. Until we get a generation of parents who realize the dangerous and infectious nature of these "minor diseases" among very young children, the efforts of the health officers cannot be completely successful.

Measles and Whooping Cough are the two diseases which cause most interference with school work, and the medical officer of health has often a difficult task in attempting to restrict the spread of these diseases in school. During 1910 a large number of sufferers and their brothers or sisters were excluded from school, and on 148 occasions it was necessary for the local Sanitary Authority acting on the advice of the Local Medical Officer of Health to order the closure of the School. In 12 other instances where the local medical officer of health did not feel justified in advising closure the Local Education Authority closed the school on the grounds that the epidemic had rendered satisfactory educational work impossible.

In the Wortley Rural Report, which refers to the enormous amount of mischief resulting from a child attending an infant school in the preliminary stage of measles, Dr. Anderson continues.—"As measles is very infectious before any rash appears, its rapid spread can only be prevented by the exclusion of all children who show the slightest symptoms of an ordinary cold. The teachers could often prevent the wholesale infection of their classes by at once excluding all cases showing catarrhal symptoms."

Dealing with infection outside the schools at Batley Dr. Pearce reports that several parents were ordered to “appear before the Sanitary Committee, and were severely admonished “because of their neglect to carry out the instructions given “them respecting the keeping apart of their children from “others.” This system might well be adopted in other districts. At Royston, where there were 24 deaths from Measles, Dr. Eskrigge heard it ignorantly and wrongly asserted by a mother that “Measles is like distemper in pups, it’s best to let them “catch it and have done with it.”

Phthisis or Pulmonary Tuberculosis.—The Table on Page 31 shows that this disease occupies the fifth place among the scheduled causes of death during 1910. The total of 1234 deaths gives us the lowest consumption death-rate ever recorded in the West Riding,—being, in fact, only about half what it was when the County Council was first established. This very satisfactory reduction should be taken as an incentive to carry on the war against tuberculosis with increasing vigour in every possible direction.

The County death-rate from Phthisis being only 0.8 per thousand, it is interesting to study the corresponding rate in the various districts, as shown in column 20 of Table I (see end). The following lists of places where the phthisis death-rate was more than 50 per cent. above the average are sufficiently varied to prove that no climatic or industrial conditions have the preference: Oakworth 1.9, Soyland 1.7, Clayton West 1.6, Pateley Bridge 1.5, Ripon 1.5, Knottingley 1.5, Meltham 1.4, Midgley 1.4, Slaithwaite 1.4. All the following districts show a rate of 1.3:—Altofts, Birstall, Halifax R., Holmfirth, Keighley, Shelf, Shipley, Skelmanthorpe, Skipton, Yeadon.

In 50 of the Reports it is stated that the Sanitary Authority have made arrangements with medical practitioners for the voluntary notification of new cases of phthisis, but in the majority of these reports it is added that the arrangement has proved a failure. In many districts the notifications were fewer than the deaths, and some of them came to hand after the death certificate. Dr. Halliwell, of Dewsbury, writes,—“Perhaps the reason “for this may be that the practitioner sees no real good in “notification until provision on Sanatorium lines is made.” At Keighley, the notifications “as a rule have referred to advanced cases, when nothing could be done for the individual “sufferers, and often very little for the protection of the other “members of the household.”

In 1908, the Local Government Board issued an Order providing for the notification to the Sanitary Authority of all cases of consumption arising among Poor Law patients. They have now gone a good deal further, and by their Regulations of 1911

they require that all cases which come under observation in general hospitals and similar institutions shall be notified to the Sanitary Authorities. It is to be hoped that this will result in the preventive forces getting to work at an earlier stage than has hitherto been possible.

One cannot refer in detail to the numerous reports which deal exhaustively with this question of the prevention of pulmonary tuberculosis. Suffice it to say that the subject is being kept continually in view by the medical officers of health and the members of Sanitary Authorities, and this augurs well for the future. The lines on which action is most commonly advocated are as follows:—

(a) *County Sanatorium Scheme.*—Not a few reports still favour this idea as being probably more economical and efficient than local effort. In the Rawmarsh report, Dr. Menzies writes, “Effective treatment of the disease requires a considerable outlay of money and constant medical supervision, and in my opinion small individual districts can only tinker with the disease.”

(b) *Local Sanatoria.*—Several arguments are advanced for special buildings separately administered and supported out of local rates. There are no such buildings at present erected, but the Hemsworth Rural Council have recently acquired an estate for the purpose. Several schemes for local amalgamation of Authorities have been in the air, including a general scheme roughly outlined by the District Councils Association.

(c) *Converted Fever Hospitals, etc.*—In quite a considerable number of districts the expedient has been, or is being, tried of receiving suitable patients into the spare wards of fever or small-pox hospitals, or into temporary annexes or shelters administered in connection therewith. The reports speak very gratifyingly of the experiments made in this direction, though pointing out that the accommodation is practically on sufferance, and liable to be suddenly terminated in the event of an outbreak of small-pox.

(d) *Special Isolation Hospitals for advanced cases.*—It is pointed out in several reports that a patient is liable to be of most danger to his associates in the final stages of his illness, and it is argued that these dangerous cases should be specially isolated. Public opinion, however, is not yet sufficiently advanced for this, and meanwhile there is reason to think that the danger is a diminishing one, because of the effect of education on the patients and their families. Probably the best agent in this educational process is a short course in a properly organized sanatorium.

(e) *Tuberculosis Dispensaries.*—Several of the reports from the town areas recommend the establishment of dispensaries at which every encouragement would be given for the early diagnosis of lung troubles. By this means many patients would come under observation and treatment whilst still able to maintain themselves. Dispensaries of this kind are doing excellent work in some large cities, and there is no reason why the towns in the West Riding should not start work on these lines, especially if the inoculation treatment with tuberculin should justify the favourable reports which are now being heard of it. A Tuberculosis Dispensary is not in any way antagonistic to a Sanatorium but rather a help, since it can with advantage deal with cases before and after treatment at the Sanatorium. It affords a very admirable means of selecting cases which are most suitable for sanatorium treatment.

As regards the results of sanatorium treatment during 1910, there is not much material in the reports because, as already stated, this only comes under the purview of the medical officer of health in a few districts where cases are being treated in connection with the fever hospitals. Dr. Lechmere Anderson, of Doncaster, says,—“In most instances considerable improvement was reported.” Dr. Scatterty, of Keighley, writes,—“Patients who were formerly seen huddling over a fire in a close stuffy room are now seen sitting under the verandah with the free air of heaven blowing all around them, sleeping out of doors at night regardless of frost and snow, eating better, sleeping better and feeling better.” Dr. Stedman, in the Selby Rural Report, remarks that “although the patients derive considerable benefit from a stay of two or three months, a return to their home-life and conditions of work is only too often followed by a recurrence sooner or later.” Dr. Angus, of Bingley, thinks that “it is, perhaps, time that we insisted less on the infectiveness of the consumptive and more on the danger of the conditions which favour the onset of the disease in susceptible persons.” In the Wakefield Report by Dr. Gibson, the problem of the housing of the working classes is referred to as being closely connected with the problem of phthisis.

To sum up, it seems clear that we are effecting a steady reduction in the prevalence of and mortality from pulmonary tuberculosis, and that the means for its further reduction is not to be found in one direction only. Everything which tends to improve and uplift the general hygienic standard of life must render it more and more difficult for tuberculosis to spread,—and chief among the educating influences comes the Sanatorium.

Other Tabulated Diseases.—The foregoing notes have dealt with all the principal infectious or notifiable diseases, but it will be seen from the Table of Mortality on page 31, that the greatest

number of deaths was ascribed to diseases which have not so far been specially commented on. For example, heart disease heads the list with 2,208 deaths, bronchitis 1,776, and pneumonia 1585. Doubtless a good proportion of these were really preventable deaths in the sense that, under more favourable conditions and with a better knowledge of the rules of personal hygiene, many of the individual sufferers might have avoided or recovered from the disease. But at present these diseases have not been completely brought within the scope of the Sanitary Authority's influence; the same may be said of Cancer, which caused 1345 deaths in the Administrative County during 1910,—an increase of nearly 100 over the previous year's figures.

Seasonal Prevalence of Disease.—Reverting to the common infectious diseases, it may be useful for record purposes to show the monthly rise and fall of the figures, as exhibited by the two following tables representing the totals from the County Notification Summary.

Monthly Totals of Reported Cases, 1910.

	Jan.	Feb.	Mar.	April	May.	June	July.	Aug.	Sept.	Oct	Nov	Dec	Total*
Small Pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bact. Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...
English Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and													
M. Croup ...	139	151	161	143	100	117	114	99	156	180	169	159	1688
Erysipelas ...	106	94	87	92	80	67	72	51	70	83	86	110	998
Scarlet Fever ...	431	419	438	387	404	405	358	315	360	516	577	528	5138
Typhus ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever...	27	27	36	25	29	33	29	63	107	102	76	69	623
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever	2	...	...	1	...	...	...	...	1	..	1	1	6
Interperal Fever	5	8	12	4	9	6	4	2	6	7	6	2	71

* Some of these totals differ slightly from the corrected yearly totals as given elsewhere in this report. That is due to the above figures being constructed on hurried monthly returns which are subject to correction at the year end.

Monthly Totals of Districts Reporting, 1910.

	Jan.	Feb.	Mar.	April	May.	June	July	Aug	Sept	Oct	Nov	Dec
Small Pox ...	...	...	...	...	...	...	...	...	...	...	...	...
Asiatic Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...
English Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and M. Croup ...	56	56	64	57	52	54	53	47	63	49	63	62
Erysipelas ...	61	60	44	58	51	44	43	36	41	48	46	57
Scarlet Fever ...	89	90	91	95	95	77	81	77	86	79	88	86
Typhus ...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever...	24	22	26	20	21	21	22	30	40	43	38	36
Relapsing Fever ...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever ...	2	...	...	1	...	...	...	...	1	...	1	1
Puerperal Fever ...	4	7	10	4	9	6	4	2	5	7	6	2
Measles ...	34	30	24	34	46	42	37	19	23	32	40	35
Whooping Cough ...	20	24	21	27	28	34	37	36	43	39	48	45
Diarrhoea ...	6	8	10	11	9	17	24	45	40	30	10	8
Chicken Pox ...	18	10	10	24	24	15	14	7	12	16	16	20
Pneumonia ...	47	37	31	27	30	24	16	13	15	23	23	34
Influenza ...	70	62	30	21	24	8	10	8	15	30	31	34
Mumps ...	6	4	2	5	8	11	12	7	10	17	25	17
German Measles ...	3	6	4	3	2	1	1	...	2	3	2	1
Lead Poisoning ...	1	1	2	1	...	...	1	2	1	...	...	...

Isolation Hospitals.—In Table iii (see end) figures are given, for every district in the Riding, showing the number of infectious cases removed to the various isolation hospitals. The gross total (5,148) was made up as shown in the following table:

	Total cases notified.	Cases removed to Hospital.	
		Number.	Proportion.
Small Pox ...	—	—	—
Scarlet Fever ...	5275	3819	72·4 per cent.
Diphtheria and Mem- branous Croup }	1721	880	51·1 " "
Enteric Fever ...	629	449	71·4 " "
Total 1910 ...	7625	5148	67·5 " "
Total 1909 ...	7633	4760	62·4 " "

Reference has already been made in Part I of this Report to the work undertaken by the County Health Department in regard to Hospital matters. The following are a few extracts from the 1910 reports of the local medical officers of health:—

Stocksbridge.—“ I must again express the hope that the new Hospital will be taken in hand before long. The present building is hopelessly out of date and very much the worse for wear. We have many things in this district of which we may be proud, but the Isolation Hospital is certainly not one of them.”

Kiveton Park R.—“ During the summer we could not remove some of the Diphtheria cases because of the overcrowded condition of the Isolation Hospital. If the population continues to increase it will be necessary to enlarge the Isolation Hospital. At present only two diseases can be taken in.”

Wortley R.—“ Though, during the year, it was possible to admit all the cases of Typhoid Fever and Diphtheria requiring isolation, this will no longer be possible if the prevalence of scarlet fever increases, as may be anticipated during the next two years. The addition to the present accommodation of a separate small ward is necessary in order efficiently to cope with these diseases.”

Balby-with-Hexthorpe.—“ There is in my opinion too little accommodation for Scarlet Fever to meet the growing requirements of the district.”

Hemsworth R.—“ The rapidly increasing population of the district renders some extension necessary.”

In the reports for Mytholmroyd, Horbury and Heckmondwike, mention is made of the absence of any proper means of disinfecting clothing.

Water Supply.—In no less than 60 of the reports mention is made of the carrying out during 1910 of extensions or improvements in regard to water supply. In the present abstract however, reference can only be made to the instances where developments are said to be still needed, as follows:—

<i>Urban Districts.</i>				<i>Improved Water Supply wanted.</i>
Ardsley	...	...	...	Bleachcroft, Stairfoot
Ardsley E. & W.	...	...	...	Some parts need larger mains
Barkisland	...	...	...	Public Supply still needed
Barnoldswick	...	...	...	Further Supply wanted shortly
Bingley	...	...	...	New mains needed
Bolton-on-Dearne	...	...	...	New pipes and more constant service
Castleford	...	...	...	More pressure wanted
Earby	...	...	...	Better filtration
Elland	...	...	...	Park Road
Emley	...	...	...	To some farms
Featherstone	...	...	...	Main to Streethouse needs re laying
Gomersal	...	...	...	Walsh Houses
Handsworth	...	...	...	Gleadless (Hurlfield and Bartle Road).
Holmfirth	...	...	...	Longley and Knowle Farm; also Malkinhouse.
Honley	...	...	...	Oldfield
Horbury	...	...	...	Storage Reservoir needed; mains choked
Hoylandswaine	...	...	...	Whole district
Hunsworth	...	...	...	Boundary Terrace and Lodge Farm
Lepton	...	...	...	Broomsgrove, Copriding, Greavehouse and Spa Bottom
Liversedge	...	...	...	Improved supply needed
Meltham	...	...	...	More storage required
Midgley	...	...	...	In many parts
Mytholmroyd	...	...	...	Brearley
New Mill	...	...	...	More storage needed. Victoria still deficient
Oakworth	...	...	...	Goose Eye, Oldfield, News-holme
Ossett B.	...	...	...	More pressure needed
Shepley	...	...	...	Sovereign and Lane End
Sowerby	...	...	...	Cotton Cottages
Soyland	...	...	...	Unity Terrace and Co-op. Terrace
Swinton	...	...	...	More adequate supply needed
Thurlstone	...	...	...	Outlying groups of cottages
Thurstonland	...	...	...	At several places
Wath-on-Dearne	...	...	...	Larger covered storage reservoir needed
Whitley Upper	...	...	...	At farms

*Rural Districts.**Improved Water Supply wanted.*

Bishopthorpe	...	...	Acaster Malbis
Bowland	...	...	Several Farms.
Doncaster	...	...	Armthorpe, Carcroft, Adwick- le-Street.
Goole	...	...	Snaith, Rawcliffe, Hook and Swinefleet
Great Ouseburn	...	...	Green Hammerton
Hemsworth	...	...	Duplicate main from Barnsley to Brierley. Storage tanks at South Elmsall and Ackworth.
Keighley	...	...	Morton Banks.
Kiveton Park	...	...	District generally
Knaresborough	...	...	Hampsthwaite, Farnham, Kettlesing, Scotton and Goldsborough
Penistone	...	...	Thurgoland, Crane Moor and Oxspring
Pontefract	...	...	Brotherton
Rotherham	...	...	Wickersley, Bramley, Maltby, Laughton, Otley, Bramp- ton
Sedbergh	...	...	Dent, Hawes Junction, Gawthrop
Settle	...	...	Malham, Kirkby Malham, Langcliffe
Skipton	...	...	Grassington
Tadcaster	...	...	Sherburn, West Allerton
Thorne	...	...	Thorne
Wetherby	...	...	Spofforth, Kirkby Overblow; also Kearby, Wighill, Ribston and Tockwith

The above list contains some entries which have figured as deficiencies for several years, during which period we have not had a really drougthy summer. At the time of writing, however, the conditions must be greatly aggravated, and it is to be hoped that the experience of 1911 will cause the Authorities to take action. As mentioned in previous reports, there is the prospect of a very serious situation in the south eastern part of the Riding, where an enormous increase of population is taking place in localities which are not well provided with water. The following is an extract from the report of Dr. Arbuckle on Thorne—a town which was represented to the Local Government Board 20 years ago as having a shockingly deficient water supply,—“During 1910 there has been a great scarcity of water in Thorne, “the majority of the private wells becoming dry owing to the “large quantity of water pumped during the sinking operations “at the new Colliery. The inconvenience of this insufficiency “of water was accentuated by the fact that for some time the

“public pumps, situated in the Market Place and Green, which
 “receive their supply from the canal, failed owing to defective
 “and broken pipes. This was remedied by laying a new con-
 “duit of 3-inch Sanitary pipes, with Stanford joints, from the
 “canal along Orchard Street to the Green-pump. The private
 “Company who have got Parliamentary powers to supply Thorne
 “and Hatfield with water by means of a deep bore into the new
 “red sandstone in Hatfield Parish, have not yet begun boring
 “operations, and it is generally felt that some pressure should
 “be put on them to speedily carry out this much needed develop-
 “ment.”

Cases of *Lead Poisoning*, attributable to the water supply, were very rarely noted during 1910, and it is satisfactory to find that few complaints are now made of plumbo-solvent water. The two public supplies which held out longest against any form of treatment to prevent plumbo-solvent action have recently come into line, and practically all the acid water supplies in the Riding are now subject to neutralising treatment with more or less satisfactory results. At Yeadon, however, the treatment was not carried far enough, and two cases of lead poisoning occurred. Dr. Muschamp, in commenting on this, says,—“The Company
 “appear slow to accept their responsibility in this matter.” At Lepton, 2 cases of lead poisoning were attributed to the Huddersfield water, and at Monk Bretton complaint was made against the Barnsley supply. The Ossett water (from the Dewsbury and Heckmondwike works) gave dissatisfaction by reason of peaty sediment.

Sewerage and Drainage.—Although there have been many sewer extensions carried out during the year and many more schemes are in hand, there is still a formidable list of places, noted in the reports for 1910, where developments are needed in the opinion of the respective medical officers of health. In the list presented below the italic print indicates that previous reports have referred in vain to the same deficiency.

<i>Sanitary District.</i>				<i>Sewerage Developments needed.</i>
Ardsley East and West	...	...	...	Haigh Moor Road, Low side of Westerton, Bradford Road, East Ardsley and Lingwell Gate
Baildon	...	...	...	Lane End
Barnoldswick	...	...	.	Lane Bottom and Gillians
<i>Bingley</i>	...	...	...	Ryecroft and Harecroft
<i>Bishopthorpe R.</i>	...	...	...	Yes
Bolton-upon-Dearne	...	...	...	Railway Houses, Goldthorpe and Wath Road, Bolton
Bowland R.	...	...	...	Bolton-by-Bowland and Grindleton

*Sanitary District.**Sewerage Developments
needed.*

<i>Brighouse Boro'</i>	...	...	Portions of Rastrick
<i>Burley-in-Wharfedale</i>	...	...	Elm Grove Estate
<i>Clayton West</i>	...	...	Yes
<i>Denby and Cumberworth</i>	...	...	Upper Denby
<i>Denholme</i>	...	...	A portion at North End of district
<i>Dewsbury B.</i>	...	...	Low side of Dewsbury Moor, Island View and part of Thornhill
<i>Doncaster B.</i>	...	...	Lower parts of town
<i>Doncaster R.</i>	...	...	Adwick-le-Street, Skellow, Carcroft
<i>Drighlington</i>	...	...	Part of Whitehall Road
<i>Earby</i>	...	...	Green End and Rushton Street
<i>Elland</i>	...	...	Church Lane, Lower Edge
<i>Flockton</i>	...	...	The Green and Lane End
<i>Golcar</i>	...	...	Westwood Edge
<i>Gomersal</i>	...	...	Bird Acre, Cliffe Lane, Spen and Scott Lane
<i>Great Ouseburn R.</i>	...	...	Knapton and Poppleton, Green Hammerton
<i>Gunthwaite and Ing.</i>	...	...	Under consideration
<i>Halifax R.</i>	...	...	Several localities
<i>Handsworth</i>	...	...	Bartle Road and Hagg Lane (Gleadless) and Greengate. Lane and Junction Lane (Woodhouse)
<i>Haworth</i>	...	...	Completion of Brow Scheme
<i>Hemsworth R.</i>	...	...	South Elmsall
<i>Hipperholme</i>	...	...	Kirk Lane
<i>Holmfirth</i>	...	...	Cartworth Moor, Totties, Runlea, Victoria Street, Bottoms Main &c.
<i>Honley</i>	...	...	Hall Ing, Deanhouse and Oldfield
<i>Horbury</i>	...	...	Several parts
<i>Hoyland Nether</i>	...	...	Several new sewers
<i>Hoylandswaine</i>	...	...	Rubble drains need replacing
<i>Hunsworth</i>	...	...	Cringles and Hunsworth village
<i>Kirkburton</i>	...	...	A number still to be made
<i>Kirkheaton</i>	...	...	Several
<i>Kiveton Park R.</i>	...	...	Harthill
<i>Knaresborough</i>	...	...	High Bond end and Stockwell Lane
<i>Knaresborough R.</i>	...	...	Follifoot, Kettlesing, Scotton, Ferrensby and Brearton
<i>Knottingley</i>	...	...	Womersley Road and Manorfold
<i>Liversedge</i>	...	...	A few private streets
<i>Luddendenfoot</i>	...	...	Sewer to take water closet refuse from mills

<i>Sanitary District.</i>				<i>Sewerage Developments needed.</i>
Marsden	...	...	...	Gatehead district
Meltham	...	...	...	New sewer in several parts of district
Midgley	...	...	...	In a few cases
Netherthong	...	...	...	Outfall sewer and works
New Mill	...	...	...	Flowery Field and Scholes Moor
Otley	...	...	...	Manholes
Pateley Bridge R.	...	...	...	Dacre Banks, Summerbridge and Low Laithes
Penistone	...	...	...	Storm overflow at Shrewsbury Road
Penistone R.	...	...	...	Lower end of Crane Moor
Rawmarsh	...	...	...	Haugh, Stubbin and part of Sandhill
Ripon R.	...	...	...	Mickley
Rishworth	...	...	...	Turner Bottom and Boothwood
Rotherham R.	...	...	...	Wickersley, Bramley and Maltby
Saddleworth	...	...	...	Harrop Green and Diggle
Sedbergh R.	...	...	...	Millthrop
Selby R.	...	...	...	Drax and Chapel Haddlesey
Settle R.	...	...	...	Airton and Scothrop, Horton, Kirkby Malham, Malham and Arncliffe
Shelley	...	...	...	School Lane and Townend
Shepley	...	...	...	Dobroyd
Shipley	...	...	...	Wrose Brow Road and Low Ash Road
Silsden	...	...	...	Completion of Sewage Disposal Works
Skelmanthorpe	...	...	...	Some
Slaithwaite	...	...	...	Brook Side and Rotcher
South Crosland	...	...	...	Johnny Brook Street and New Street, Netherton
Sowerby	...	...	...	Part of Sowerby town
Soyland	...	...	...	Sewers require completing
Stanley	...	...	...	Ferry Lane, Lingwell Gate, Nook Lane
Stocksbridge	...	...	...	Rocher
Tadcaster R.	...	...	...	Church Fenton
Thorne R.	...	...	...	Thorne
Thurlstone	...	...	...	The Workhouse, Grammar School, Lodging House
Thurstonland	...	...	...	Top o' th' Bank
Wetherby R.	...	...	...	Shadwell, Weeton and North Ripton
Wharfedale N.	...	...	...	Middleton and Nessfield
Wharfedale S.	...	...	...	Adel
Whitley Upper	...	...	...	Woodnook
Wortley R.	...	...	...	Loxley

Many literal extracts from the reports might be given to emphasise the various entries in the above list, but space forbids. No doubt there are difficulties in the way of carrying out some of the developments suggested, but these difficulties should not be allowed to stand in the way year after year. In the Thurlstone report Dr. A. U. J. Wilson writes,—“Nothing further has been done in regard to the drainage of Netherfield, the Workhouse, the Grammar School, and the Lodging House. In regard to the drainage of the Lodging House, the Council applied to the Penistone Council for this drainage to be put into the Penistone Sewer which runs past the front of the Lodging House, but the Penistone Council would not entertain the idea except some agreement could be arrived at in regard to the rest of the drainage from the Bridge End section of the District. It is unfortunate that the two Councils cannot come to an agreement on the matter, as I am sure it could be arranged for their mutual advantage. The Grammar School is now nearly completed and will shortly be occupied, so it is very necessary that something should be done.”

The following is from the report by Dr. MacGregor on Denby and Cumberworth,—“I regret that I am still unable to report any progress as to the provision of a sewer for the proper drainage of the school house, school premises and cottages at Upper Denby. In my 1908 and 1909 reports I alluded at length to the urgent necessity of this being seen to without delay, and I would again strongly advise the Council to get the nuisance abated at once. As matters stand, the outlet for the school premises and school house is a cesspool in the garden near the school house. This, at times, overflows into the adjoining graveyard. I trust therefore, that prompt steps will be taken to bring this matter into line with the rest of the District in similar instances.”

In the Oakworth, Mirfield and Bingley reports, reference is made to the dangerous use of rubble or surface-water drains for the reception of domestic sewage.

At the undermentioned places complaint was made of the inefficiency of the sewage disposal works,—Anston, Ardsley East and West, Bingley, Brighouse, Castleford, Crigglesstone, Durkar, Glusburn, Horbury, Kirkburton, Otley, Painthorpe, Pontefract, Rothwell, Shaw Mills, Silsden, South Elmsall, Swinton, Thurnscoe and Wombwell. The administration of the Rivers Pollution Prevention Acts is in the hands of the West Riding Rivers Board, but the County Health Department retains its connection with this matter to the extent of dealing with all cases where the improper disposal of sewage produces a nuisance or danger to health apart from the pollution of a watercourse.

Closets.—Great progress continues to be made in the conversion of the old-fashioned privy-middens into water closets, but it will be a long time before we are free from the dangers which are inseparable from the first-named variety. Indeed, in many of the newly developed parts, the absence of a satisfactory water and sewerage system will necessitate the continued adhesion to the privy type,—for example, in the new colliery houses at Thorne. In the Monk Bretton report, Dr. McSwiney complains that practically none of the new houses erected during the year have been provided with water closets.

The records on the year make mention of the construction of 4,806 new closets, most of which were on the water-carriage system, and of the reconstruction of 3,222 old closets, most of these being conversions to water closets.

It would be easy to fill these pages with the diatribes levelled against privy middens in the reports under review, especially when, as is often the case, these conveniences are large, badly placed, and used by too many persons. The following example from the Holmfirth Report, by Dr. R. H. Trotter, must suffice,—“Amongst reported cases, I may mention three
“houses with one tub-closet, five houses with seventeen adult and
“three child inmates with one midden privy, four houses with
“twelve adult and five child inmates with one midden privy, and
“four houses with nine adult and five child inmates with
“one midden privy.”

Scavenging.—This is another prolific source of complaint and danger to health, especially in districts where the work is left to owners and tenants, or is let out to farmers or other contractors, who usually consult only their own convenience in dealing with the work.

Inadequacy of scavenging is mentioned in connection with the following places. Where the name of the district is printed in italics the trouble is an old-standing one which has been commented on in previous reports:—

<i>Scavenging</i>				<i>Inadequacy.</i>
Barnoldswick	...	...	...	Staff insufficient.
<i>Birkenshaw</i>	...	...	...	At Drub.
<i>Bishopthorpe R.</i>	...	...	...	Yes.
<i>Bowland R.</i>	...	...	...	Grindleton.
<i>Doncaster R.</i>	...	...	...	Adwick-le-Street, Skellow and Carcroft.
Featherstone				Some.
<i>Flockton</i>	...	...	...	Irregular emptying of middens.
<i>Gildersome</i>	...	...	...	Irregular at times.

<i>Scavenging.</i>				<i>Inadequacy.</i>
Golcar	...	...	...	Should be more frequent.
Hemsworth R.	...	...	...	At times, particularly South Elmsall.
Holmfirth	...	...	...	Norridge Bottom.
Kiveton Park R.	...	...	...	West Thorpe.
Knarborough R.	...	...	...	Killinghall, Pannal and Knarborough Outer.
Midgley				Irregular in parts.
Pateley Bridge R.	...	...	...	Very irregular in Pateley Bridge.
Penistone R.	...	...	...	Throughout the district.
Saddleworth	...	...	...	Denshaw.
Settle R.	...	...	...	In populous parts.
Shelley	...	...	...	In district generally
Skipton R.	...	...	...	Carleton, Cononley, Embsay, and Grassington.
Slaithwaite	...	...	...	Staff insufficient.
Soyland	...	...	...	In populous parts.
Stocksbridge	...	...	...	Imperfectly done.
Swinton	...	...	...	Inefficient.
Thurlstone	...	...	...	A few outlying parts.
Tickhill	...	...	...	Council should do the work.
Wetherby R.	...	...	...	North Rigton, Weeton, Shadwell, etc.
Whitley Upper	...	...	...	General.

Mention is made of the unsatisfactory character or location of the 'tips' at Batley (Soothill Upper), Flockton, and South Crosland, while in the following districts the provision of a destructor for dealing with refuse is strongly advocated:—Birkenshaw, Castleford, Holmfirth, Horbury, Normanton, Otley, Rawmarsh, Silsden.

Condition of Yards and Streets.—In the thickly-populated localities where houses are closely aggregated, the intervening yards and streets are repeatedly soiled with organic pollution, and if the surfaces are unpaved, ungraded and undrained they constitute an environment amid which hygienic homes are an impossibility. On the other hand, well-paved, dry and dustless yards and streets quickly repay their cost in improved health and comfort. The following are a few of the reports which call attention to the necessity for further improvement in this respect:—Barkisland, Bingley, Birstall, Clayton, Earby, Darfield, Farsley, Handsworth, Heckmondwike, Keighley, Kiveton Park R. (Dinnington), Knottingley, Mexborough, Normanton, Pontefract, Rawmarsh, Selby, Silsden, Stanley, Tadcaster R. (Allerton Bywater), Wakefield, Whitwood, Worsborough.

In the Normanton Report, Dr. Johnson states that sometimes a newly-paved or asphalted street receives vegetable

refuse “ pitched from the back door into the middle of the road.” This, however, is an offence which, on good roads, should be quickly discovered and suitably dealt with by the sanitary officials.

Housing of the Working Classes.—In the last Annual Report of the County Medical Officer, mention was made of the recent change in the law concerning the powers and duties of the Sanitary Authorities under this heading, and it was shown that a vast amount of work was waiting to be done. The records of 1910 indicate that in the majority of districts there has been a bona fide attempt to make a start on the new lines. Altogether 17,718 dwelling houses were inspected during the year, and of these 180 were formally “represented” as unfit for habitation. Closing Orders were subsequently made by the respective Sanitary Authorities in regard to 120 of these “represented” houses. As regards the houses situate in Rural Districts, the Act gives the County Medical Officer a special overlooking position, and particulars have already been given (see page 11) concerning the 44 “re-presented” houses which were in Rural Areas.

In September 1910 the Local Government Board issued an Order which, if properly carried out, will make great demands on the time and ability of the local medical officers and sanitary inspectors throughout the County. Indeed, in many areas, these appointments will need to be revised before the new duties can be fairly performed. When the report for 1911 comes to be written it will be necessary to state precisely what each Authority has done towards carrying out the following (among other) specific duties laid down by the new Order—(1) Determining the procedure to be adopted for the inspection of the district as required by Article I. of the Regulations. (2) Causing to be prepared (as required by Article I. (3) of the Order) a list of the dwelling houses, the early inspection of which is desirable. (3) Actually carrying out the inspections and keeping the prescribed records by an officer to be specially designated by the Sanitary Authority. The Order prescribes the exact form in which the records of each inspection are to be kept, and stipulates that the local Authority shall *at each of their ordinary Meetings* take these records into consideration, and give all such directions and take all such action as may be necessary. As the local medical officer of health is to be called upon at the end of the year for a full report of the action taken, it is necessary that he should see to it that these records are kept and acted upon in the manner laid down.

Reverting to the records for 1910, mention is made of the erection of 5841 new houses during the year, and the following local figures will give an idea of the rural districts where the greatest development is taking place (the figures for 1911 will probably exceed these):—Doncaster R. 692, Hemsworth R. 149,

Rotherham R. 326, Kiveton Park R. 150, Tadcaster R. 149, Thorne R. 125. There is no record of a Town Planning Scheme being prepared by any Sanitary Authority, but this subject is discussed in the earlier part of the present report (see page 10). In the following districts it is stated that the Local Authority have erected working-class dwellings,—Bolton-on-Dearne, Doncaster, Flockton, Ilkley, Keighley, Linthwaite, Morley, Normanton, Shipley and Whitley Upper. At Featherstone and some other places a proposal of this kind was under consideration.

In the districts where there is a great demand for houses, the medical officers find great difficulty in dealing with *overcrowding*. Thus, in the Featherstone district, Dr. Buncle says that notices to abate overcrowding are complied with, but it is simply done by removing into another street, which process he describes as “robbing Peter to pay Paul.” Dr. Wiltshire of Hemsworth admits that “conditions are necessarily tolerated “which would be condemned if choice existed.” Dr. Stedman of Selby mentions that several families displaced for overcrowding moved into neighbouring villages, and he found one house where the only bedroom was occupied by a man, his wife, three children and two lodgers. In the Doncaster Rural District, Dr. McLean writes,—“One frequently finds two families living “in a three-bedroomed house, with as many as 13, 15 or 18 “persons per house.” In Doncaster Borough, too, it is stated that serious overcrowding exists, while at Pontefract the demand for houses has led to the re-occupation of premises previously condemned and closed as unfit for habitation. In regard to these Dr. Hillaby adds,—“I am of opinion that these wretched places “should be closed and demolished, as they could never be made “fit for human habitation.” Insanitary and dilapidated dwellings are also mentioned in the reports from Mirfield, Hoylandswaine, Thurlstone and other places. One writer observes that the poor property-owner is sometimes a great bar to progress, since he cannot afford to improve his houses, and in deteriorating they attract an undesirable element of population to an otherwise decent neighbourhood. Dr. Scatterty speaks of certain property in Keighley having a general environment of dirt and dilapidation “which is the despair at once of the philanthropist, “the political economist and the sanitarian.” In the adjoining district of Keighley Rural, six filthy houses were cleansed by the Sanitary Authority. In Barnsley, Dr. Sadler points out that soap and water would make an enormous difference in the slum dwellings, while on the other hand new property can quickly become uninhabitable by the neglect of the tenant. Dr. Sadler continues,—“In one case recently we have been obliged to “proceed against the tenant of a *new house* for allowing it to “become so dirty as to become a nuisance and danger to the “public health.” At Goole, consequent on the clearing away of some old property, Dr. Erskine found that the statistics of crime in the neighbourhood have been reduced, and that the Relieving Officer has had to distribute less relief.

The reports do not contain so much evidence as might have been expected of action taken under Sections 14 and 15 of the Act of 1909. These sections lay down a condition which is in future to be implied in every letting of a working-class dwelling, namely, that the house is in all respects reasonably fit for habitation, and that the landlord will keep it so. The Sanitary Authorities are empowered by the Act to enforce this implied condition in a summary manner, but it does not appear that many of them have operated under these powers, although, as will appear elsewhere, a large amount of work has been done in the removal of nuisances. At Goole, Dr. Erskine mentions that,—“Within the last few weeks at least 40 houses in the North Ward have been under repairs for improvements, viz:—“Defective sink pipes, decayed brick work and open joints near sink pipes, fast gully tops replaced with more up-to-date covers, roof spoutings and downfalls repaired, and in several cases the yard paving has been repaired, besides three examination chambers built to drains.”

As has been already stated there are very few Sanitary Authorities who are really equipped for dealing with House Inspection in the complete and systematic manner which is required by the new Regulations. When a large district has only one Sanitary Inspector, with numerous other duties, it is manifestly impossible for him to give the necessary amount of time to the new duties. In the Holmfirth Report, Dr. Trotter writes,—“At present we have a part-time Medical Officer of Health who acts for three other Districts, and a part-time Sanitary Inspector whose salary is only made in the least degree adequate by his acting for two other Districts, small in population indeed but of considerable size, and, together with Holmfirth giving a total area of great extent and extremely rugged and exposed.”

On a form which is attached to the Annual Report for 1910 it is definitely stated that in the undermentioned Urban Districts no systematic house inspection was in operation during 1910:—

Batley	Farsley	Rawmarsh	Springhead
Birkenshaw	Guiseley	Rishworth	Stocksbridge
Birstall	Heckmondwike	Rothwell	Swinton
Calverley	Horbury	Shelf	Thurnscoe
Dodworth	Ilkley	Shipley	Thurstonland
Darfield	Mytholmroyd	South Crosland	Tickhill
Drighlington	Rawdon	Soyland	Yeadon

Factories and Workshops.—Considering that the West Riding is so largely a manufacturing district, there is remarkably little in the Annual Reports relating to the health and sanitation of these premises. This is not a sign of indifference, but is due to the fact that a separate statistical report has to be made to the Home Office by each medical officer of health. In those reports, record is made of no less than 10,495 inspections of factories and workshops during 1910. There were discovered 720 defects, of which 671 were promptly remedied, 11 referred to H.M. Inspectors, and the remainder were receiving attention when the year closed. Only two prosecutions were necessary, and these were against one firm in regard to insufficient closets. Dr. Thorman, of Kirkburton, refers to an example of insanitary closets, which is seemingly an old-standing defect, as follows:—"For some time now in my Annual Report I have made unpleasant remarks about the condition of the closets for females at Springhead Mill. The closets are arranged in a tower on different floors, the excreta falls from a height and drops outside. The arrangement for the reception and disposal of the excreta is very unsatisfactory, and constitutes a definite nuisance; the whole system requires re-arranging."

The following figures show the number and kind of inspections made during 1910, and the particulars regarding the defects found:—

	Factories.	Workshops.	Workplaces.	Homeworkers Premises.
Total Inspections made	1981	8134	241	139
„ Written Notices served...	81	153	2	—
„ Prosecutions	2	—	—	—

Particulars.	Number of Defects.			Number of Prose- cutions
	Found.	Remedied	Referred to H.M. Inspector	
<i>Nuisances under Public Health Acts</i>				
Want of Cleanliness	187	187	2	—
Want of Ventilation	43	38	1	—
Overcrowding	6	6	—	—
Want of Drainage of Floors ...	8	8	—	—
Other Nuisances	97	95	—	—
Closets Insufficient	93	80	3	1
,, Unsuitable or Defective ...	232	208	2	1
,, Not Separate for Sexes ...	21	21	1	—
<i>Offences under the Factory and Work- shop Act:—</i>				
Illegal Occupation of Underground Bakehouse (S. 101)	2	—	—	—
Breach of Special Sanitary Re- quirements for Bakehouses ...	24	22	2	—
Other Offences	7	6	—	—
Total offences ...	720	671	11	2

Smoke Nuisance.—It might be a very good thing if His Majesty's Inspectors of Factories could give an eye to this question in the course of their visits to factories. Their duties at present are limited to the health and safety of the employed persons, while the smoke question, as affecting the inhabitants at large, is left with the Local Sanitary Authorities, who are seldom strong enough to deal with it effectually. Many will agree with Dr. Robertshaw when he says, in the Stocksbridge Report.—“It is a big question, bristling with difficulties,” and “it is too” “be hoped that before long the matter will be under the control” “of a Central Authority.”

The statistics of 1910 show that 1,248 “observations” were made by the sanitary inspectors of the West Riding, and that as a result 77 notices were issued to abate smoke nuisance. At Yeadon there were 9 prosecutions, at Sadkllsworth 4, Shipley 1, and Todmorden 1. Thus in 13 out of 14 Boroughs there was no prosecution for smoke nuisance, and in 6 boroughs there were no notices issued during the year. The meagreness of these figures is not to be taken as evidence of improved conditions, because unfortunately the inaction of the authorities and the silence of some reports on this topic are noticeable in the presence of undoubted nuisance. Dr. Angus, of Bingley, says:—“During the last few months the nuisance has been, I think, “as bad as ever, and certainly much worse than it ought to be.” Dr. Halliwell, of Dewsbury, asserts that “there has been an “unnecessary amount of pollution of the atmosphere by dense” “black smoke.”

Nuisances, Etc.—The following figures show a considerable increase on the previous years as regards the number of nuisances reported and abated:—

No. of nuisances in hand at end of 1909	...	...	...	2910
No. reported during 1910	...	...	...	21099
				24009
No. abated during 1910	...	...	...	23334
No. remaining in hand at end of 1910	...	...	...	675
No. of legal notices to abate	...	...	...	3866
No. of Summonses for non-abatement	...	...	...	47

The great majority of these nuisances were defects discovered by the sanitary inspectors in the course of their duties. Now that the new Regulations have laid special emphasis on systematic house inspection, it may be expected that still larger figures will be reported. Another change will come into operation with the next report consequent on the “Sanitary Officers’ Order,” dated December 13th, 1910, which requires every medical officer of health to include in his annual report particulars of the work done by the Inspector of Nuisances.

Dairies, Cowsheds, and Milkshops.—There has been a large increase in the number of inspections of cowsheds. The tables for 1910 show no less than 9,288 visits to cowsheds as compared with 5,453 in the previous year. This increase is due in a very large measure to the circular letter issued by the West Riding Public Health and Housing Committee on the subject of pure milk, advocating the regular visitation of cowsheds and the inspection of cattle. In 45 districts, it is stated, special inspections of cowsheds were undertaken during the year. Some 39 Local Authorities authorised their Medical Officer or Sanitary Inspector to call in the services of a Veterinary Inspector whenever required, while 12 Authorities did better still, and made arrangements with a Veterinary Surgeon to carry out systematic inspections. In most districts the result of the cowshed inspections is put down as “fair” or “improving,” but it is evident that in many districts the standard is being raised, and the cowsheds are far better than was the case a few years ago. In the following 25 districts, however, reference is made to definitely unsatisfactory features:—

<i>Sanitary District.</i>	<i>Condition of Cowsheds.</i>
Baildon	Several improvements required.
Barkisland	Some defective.
Birkenshaw	Lighting and ventilation inefficient in a few.
Castleford	Some improvement required.
Cleckheaton	Some overcrowded.
Cudworth	Many require structural alterations.
Darton	Several bad.
Dewsbury Boro'	Very variable; good to bad.
Earby	Unsatisfactory.
Gomersal	All deficient in air space and light.
Great Ouseburn R.	Not good.
Gunthwaite and Ingbirch.	Unsatisfactory.
Hunslet R.	Some want of cleanliness.
Keighley Boro'	Design faulty.
Mirfield	Insufficient air space.
New Mill	Several defective.
Oakworth	Not satisfactory.
Otley	Bad and good.
Oxenhope	Structural improvements required.
Scammonden	Improvements needed.
Settle R.	Poor.
Shipley	Improvement needed.
Silsden	Structural improvements needed.
Skipton	Not satisfactory.
Soyland	Mostly unsatisfactory.

Some years ago the County Council urged all West Riding Authorities to adopt up-to-date Regulations under the Dairies, Cowsheds, and Milkshops Order, and we were under the impres-

sion that all had been brought into line. It is somewhat surprising, therefore, to read that at Heckmondwike they have been without a Register of Cowkeepers, and that at Holmfirth only 36 out of 57 milk dealers were registered up to the end of 1910. At Gunthwaite and Ingbirchworth Dr. MacGregor states that "the cowsheds are practically in the same condition as they were when reported on by Dr. Farrar and myself."

The objection which old-fashioned cowkeepers have to any increase in the means of ventilation or in the air-space of the sheds is a feature which is slowly giving way to modern views. At Barwick (Tadcaster Rural) "a cowkeeper was summoned for not keeping his sheds sufficiently ventilated. Although the landlord had provided ventilators he did not use them. The sheds were also overcrowded. A fine of £5 and costs was imposed." Dr. Anderson, of Wortley Rural District, reports as follows:—"In regard to all structural alterations, except, perhaps, the provision of special ventilating openings, the occupiers are unanimously of opinion that a great improvement has been effected. Even where the occupier is also the owner he has not infrequently expressed regret that he was not compelled to carry out structural alterations long ago."

Common Lodging Houses.—Mention is made of only 128 Registered Common Lodging Houses, though the number in the West Riding must be considerably more. The number of visits recorded was 2,073, and the general opinion as to the condition of the premises was satisfactory. Certain premises at Morley were closed as unfit for the purpose.

It is highly important in the interests of health that all places should be under supervision where the moving population of the poorer class is accommodated. In some parts of the West Riding the homeless workers and seekers of work are more numerous than the registered premises can accommodate, and this sometimes leads to ordinary householders taking in casual lodgers with little regard to health or decency. Dr. Stedman mentions three such instances at Selby as follows:—"At one house in Lady-smith Yard we found six nightly lodgers, each paying 4d. a night. In a house in Wide Street five lodgers were in bed. At a house in Wren Lane, not only were there a number of nightly lodgers, but a shocking condition of overcrowding existed. In one room not sufficiently large for five, ten men were sleeping in four beds, and both windows and doors were shut. A top attic also was overcrowded. In addition to the nightly lodgers, all these had a number of others who were said to lodge regularly." In Harrogate there are no Registered Common Lodging Houses, but Dr. Mair says there is reason to believe that certain houses receive casual lodgers of the class referred to.

In some of the agricultural districts great difficulty is experienced in housing properly the harvesters and the vegetable pickers. Dr. Stedman recounts a visit paid to premises attached to an inn at Burn (Selby R.),—"In a stable we found sleeping, "a man, his wife, wife's two sisters, two children, and wife's "mother. In a shed adjoining were the father and husband of "one of the above women. They informed us they were also "going to sleep in the stable. In another stable with a horse "was a man; in a shed a man and wife, and a man in the pigsty. "These people each paid 2d. a night for their lodging. The "Innkeeper was summoned for keeping a common lodging-house "without being registered. The case after an adjournment was "dismissed on the point of law that the occupier of licensed "premises cannot be convicted of keeping a common lodging-house."

Slaughter Houses.—The fact that 14,685 visits were paid to slaughter-houses during 1910 is some indication of the endeavours made to keep the meat supply under supervision in the interests of public health. As, however, there are 1261 licensed slaughter houses, it works out at something less than one visit per month per slaughter house. The difficulty of supervising such a large number of separate establishments is one which is often commented on in the reports and which gives ground for the frequent demand that private slaughter-houses should be abolished and a reasonable number of public abattoirs substituted. Some of the existing premises are described as unsatisfactory in Batley, Earby, Knaresborough, Morley, Otley, Skipton, Todmorden, and in the Leeds Rural and Wakefield Rural Districts. Instances of unlicensed slaughtering occurred at Greetland, and in the Thorne Rural District, but there is no mention of any legal proceedings under this head. The erection of a public abattoir is recommended in the reports from Castleford, Dewsbury, Mexborough, Pontefract, Silsden and Todmorden. At Heckmondwike "it is probable that none of the slaughter-houses "is either licensed or registered." At Saddleworth, "some of "the butchers scarcely know what to do with the offal," while at Mytholmroyd, Dr. Thompson has repeatedly "seen dogs "trailing unburied offal about the fields near the railway station."

Unsound Food.—Record is made of 189 seizures of unsound food, but in only three cases did legal proceedings follow. This is due to the fact that in the majority of cases the unsound food was voluntarily surrendered. It included fish, rabbits, vegetables, jam, eggs and butchers meat. In the Hunslet Rural District, "a carcass suspected of tuberculosis was found in a "slaughter-house, but the man in possession decamped before it "could be officially seized." However, it was followed up and eventually reached a knacker's yard. One or two instances occurred where food which was suspected of having been exposed to infection was seized and destroyed by the Health Officer, the owner being compensated as the material was not obviously unsound.

Canal Boats are subject to inspection in the interests of the health of occupants and of the public. During the year, 1610 inspections were made and several infringements of the Regulations were noted. These, however, were all remedied without the necessity of legal proceedings.

Offensive Trades.—There are 208 premises whereon are conducted trades specified in the Public Health Act as “Offensive.” These premises gave occasion for 1515 inspections during 1910, but no special observations are contained in the reports and no legal proceedings are mentioned.

In the Rawmarsh report, Dr. Menzies states that “application was made for permission to erect a maggot-rearing house in the district, and this the Council very rightly refused to allow.” Owing to the publicity recently given to the alleged possibilities of this trade it is likely that attempts will be made to set up establishments in other districts. Although it may be a legitimate trade, it is undoubtedly an offensive one which needs to be strictly supervised in the interests of the public health. One of the conditions which should attach to this business is that the flies which are bred for and employed in it should not be at liberty to fly away and settle on human beings or human food after their contact with putrefying and diseased carcases.

Sale of Food and Drugs Acts.—The total number of samples submitted to the Public Analyst during 1910 (see page 17), includes 504 samples purchased by the Officers of the various Local Authorities in the Riding. The table given below shows in alphabetical order those districts which contributed to this sampling, and the number of samples taken in each:—

Batley B.	... 67	Ilkley	... 22	Saddleworth	... 7
Brighouse B.	... 6	Keighley B.	... 26	Shelf	... 3
Clayton West	... 3	Linthwaite	... 3	South Crosland	... 7
Elland	... 10	Marsden	... 6	Southowram	... 2
Featherstone	... 5	Meltham	... 8	Stanley	... 3
Golcar	... 6	Methley	... 1	Todmorden B.	... 19
Gomersal	... 3	Mirfield	... 8	Worsborough	... 13
Goole	... 10	Morley B.	... 10	Doncaster R.	... 5
Harrogate B.	... 78	Ossett B.	... 11	Hemsworth R.	... 8
Haworth	... 4	Oxenhope	... 3	Hunslet R.	... 10
Hebden Bridge	... 6	Pontefract B.	... 2	Pontefract R.	... 1
Hipperholme	... 1	Pudsey B.	... 37	Wakefield R.	... 7
Honley	... 9	Rawmarsh	... 12		
Horbury	... 15	Ripon City	... 9		504
Horsforth	... 6	Rothwell	... 32		

34 of the above Local Authorities availed themselves of the arrangement under which the County Council pays the Analyst's fees, and 317 samples of new milk purchased by them are included in the total given in the above table.

The four Boroughs possessing their own Analyst dealt with an increased number of samples during 1910, viz.—Barnsley, 120 samples; Dewsbury 60; Doncaster 90; Wakefield 150. Total 420. By adding this figure to the total on page 17 it will be seen that for the whole of the Administrative County the gross number of samples analysed during the year was 3264, or 2.0 per 1,000 of the population.

Meteorology.—Since the weather conditions have an influence on the incidence of and mortality from certain forms of sickness, it is desirable to place on record the data contained in the reports as to the rainfall and temperature as observed locally during 1910. Unfortunately the seasonal variations cannot be given here, but the position may be roughly summed up by stating that we had a cold and wet summer and a mild winter. Dr. Sadler (Barnsley) remarks quite truly that “the deficiency of “hot days and the excess of rainy ones does not seem to have “been prejudicial to the health of the community.”

ANNUAL RAINFALL, in inches.

			1910	1909	1908	1907
Barnoldswick	...	...	45.11	42.42	44.21	41.73
Barnsley	...	...	29.54	30.21	22.59	26.34
Batley B.	...	...	30.26	?	19.22	24.80
Bingley	...	...	30.06	27.48	27.61	29.71
Bolton-upon-Dearne	...	...	25.49	26.46	18.49	24.79
Brighouse	...	...	37.00	36.30	31.00	34.00
Cleckheaton	...	...	32.45	32.25	25.32	30.09
Doncaster	...	...	26.26	27.32	22.69	28.03
Elland	...	...	30.37	33.13	31.81	34.60
Goole	...	...	25.10	24.10	22.25	27.52
Handsworth	...	...	?	34.28	27.96	34.78
Harrogate	...	...	34.08	31.97	26.01	34.44
Hebden Bridge	...	...	50.19	44.39	39.18	44.50
Horsforth	...	...	?	28.18	25.36	30.29
Ilkley	...	...	38.55	34.48	33.40	37.70
Keighley B.	...	...	40.00	33.00	32.11	37.24
Mexborough	...	...	21.73	25.83	18.24	22.81
Mytholmroyd	...	...	50.19	44.26	44.51	44.50
New Mill	...	...	54.30	49.30	?	50.80
Ossett	...	...	26.22	25.44	20.44	23.96
Oxenhope	...	...	53.54	47.12	?	49.24
Penistone	...	...	22.66	?	31.91	33.54
Pudsey	...	...	28.77	27.93	23.72	28.60
Selby	...	...	20.77	20.44	17.02	25.72
Silsden	...	...	33.10	29.01	29.08	31.27
Skipton	...	...	34.37	35.82	31.92	33.62

ANNUAL RAINFALL, in inches.

	1910	1909	1908	1907
Swinton	25.61	28.24	21.25	25.19
Todmorden	46.59	53.84	38.96	45.55
Wakefield	25.68	26.39	19.69	22.35
Wath-on-Dearne	25.73	29.69	19.90	25.61
Wombwell	25.15	28.53	?	24.00
Worsborough	24.78	27.97	20.97	25.14
Barnsley R.	?	30.10	?	26.34
Bowland R.	47.70	49.70	47.70	47.70
Doncaster R.	?	28.64	24.48	28.52
Keighley R.	34.96	30.63	?	29.71
Kiveton Park R.	24.87	27.83	20.38	23.66
Sedbergh R.	57.94	54.44	57.01	58.66
Settle R.	45.90	44.99	45.23	42.52
Thorne R.	22.5	21.19	19.08	22.10
Todmorden R.	46.62	42.17	38.25	42.73
Wharfedale N.	?	32.10	?	35.32
Wortley R.	29.50	29.50	22.40	27.20

MEAN TEMPERATURE, in Degrees Fahrenheit:—

Bolton-on-Dearne	42.6	47.9	44.6	46.0
Brighouse	47.5	46.5	47.7	47.0
Doncaster Boro'	51.9	50.9	50.9	51.1
Goole	51.1	45.0	45.0	45.0
Harrogate	46.5	45.4	46.7	46.2
Hebden Bridge	46.0	45.0	46.3	46.5
Ilkley	47.2	45.7	46.7	46.1
Mexborough	48.9	48.4	49.9	48.9
Mytholmroyd	46.0	46.4	46.5	46.5
Ossett	43.4	45.9	45.5	46.7
Pudsey	47.3	46.1	47.4	44.6
Skipton	48.5	46.9	47.9	47.6
Swinton	?	46.8	48.1	47.2
Wakefield	47.5	46.5	47.5	47.0
Wath-on-Dearne	42.6	44.5	44.6	46.0
Worsborough	50.0	48.4	50.9	49.4
Bowland R.	46.9	46.9	46.9	46.9
Doncaster R.	?	48.2	48.8	47.2
Kiveton Park R.	48.6	47.4	48.7	47.7
Settle R.	46.5	45.6	46.8	46.0
Todmorden R.	46.4	45.2	46.2	47.2

PART IV.

STATISTICAL ADDENDUM.

Money borrowed by Local Sanitary Authorities.—The total amount of loans for various purposes sanctioned by the Local Government Board, on the application of Local Authorities within the Administrative County, is shown in the following table:—

Loans sanctioned, 1888-1909.

YEAR.	PURPOSE.				Total Loans Sanctioned.
	Sewerage and Sewage Disposal.	Water.	Hospital.	Other.	
	£	£	£	£	£
1888	14,110	9,130	5,500	90,434	119,174
1889	25,933	53,479	—	71,968	151,380
1890	9,969	57,030	8,500	24,505	100,004
1891	64,035	63,205	8,300	88,518	224,058
1892	77,323	16,180	2,005	118,856	214,364
1893	101,143	27,250	9,150	140,639	278,182
1894	202,839	56,328	30,386	117,306	406,859
1895	289,370	81,176	11,635	255,110	637,291
1896	168,706	12,501	250	107,965	289,422
1897	147,400	18,432	12,420	149,122	327,374
1898	170,074	18,278	28,460	262,252	479,064
1899	192,654	43,760	16,990	183,281	436,685
1900	267,314	54,049	8,889	93,003	423,255
1901	177,759	17,150	27,097	309,616	531,622
1902	183,905	178,685	14,715	187,704	565,009
1903	178,442	66,361	9,246	159,365	413,414
1904	238,050	60,649	6,800	154,519	460,018
1905	92,923	10,787	6,676	88,447	198,833
1906	96,145	14,753	21,614	50,742	183,254
1907	67,109	126,282	2,580	61,505	257,476
1908	126,349	17,888	20,821	58,091	223,149
1909	151,419	11,621	1,496	112,696	277,232

Loans Sanctioned during 1909.

I.—Urban District.		Purpose.	Yrs.	Amt. £
Barnoldswick	...	Sewerage and Disposal	30	7,431
do.	...	Sewage Disposal	15	456
do.	...	Gasworks Purposes	22	1,450
do.	...	do.	5	520
do.	...	Private Street Improvement	7	1,759
Barnsley Boro'	...	Sewerage	30	200
do.	...	Public Conveniences	30	120
do.	...	Market Purposes	12	296
do.	...	do.	25	1,075
Batley Boro'	...	Public Walks and Pleasure Grounds	30	860
do.	...	Sewage Disposal	23	2,242
do.	...	do.	30	6,020
do.	...	Land for Sewage Disposal	60	4,750
do.	...	P.H. (Interments) Act, 1879	60	3,127
do.	...	do.	21	2,200
Bolton-upon-Dearne	...	Public Walks and Pleasure Grounds	50	350
Brighouse Boro'	...	Street Improvement	60	3,029
do.	...	do.	20	2,000
do.	...	do.	16	705
Castleford	...	Sewage Disposal	30	14,135
do.	...	do.	15	700
Cleckheaton	...	Market Purposes	21	350
do.	...	Land for Sewage Disposal	60	300
do.	...	Sewerage and Disposal	30	4,521
Darfield	...	Sewage Disposal	28	5,927
do.	...	Land for Refuse Tip	30	573
Dewsbury Boro'	...	Public Walks and Pleasure Grounds	10	2,000
do.	...	Land for Street Improvement	60	687
do.	...	do.	5	513
Dodworth	...	P.H. (Interments) Act, 1879	60	465
do.	...	do.	21	1,140
Featherstone	...	Water Supply	30	1,672
Flockton	...	Dwellings	60	1,000
Goole	...	Waterworks Purposes	30	500
do.	...	Gasworks Purposes	30	1,000
Greetland	...	Sewage Disposal	15	152
Guiseley	...	Sewerage	25	450
Handsworth	...	Street Improvement	20	2,197
do.	...	do.	60	410
Harrogate Boro'	...	Public Baths	60	650
do.	...	do.	30	7,094

I.—Urban District.	Purpose.	Yrs.	Amt. £
Harrogate Boro'	Public Baths	13	1,056
do.	Sewage Disposal	15	326
do.	do.	30	4,174
do.	Steam Roller, &c.	10	1,098
do.	Waterworks	15	3,318
Hebden Bridge	Mortuary	20	135
Hipperholme	Shed for Steam Road Roller	30	92
do.	Steam Road Roller and Scarifier	10	458
do.	Water Supply	10	550
do.	Sewerage and Disposal	30	1,193
Holmfirth	Sewage Disposal	30	300
Horbury	Private Street Improvement	5	346
Horsforth	Street Improvement	12	1,445
do.	do.	60	730
do.	Water Undertaking	30	875
Hoyland Nether	Sewage Disposal	30	3,206
Ilkley	Gas Undertaking	10	4,243
Knaresborough	Sewage Disposal	29	2,200
Liversedge	Street Improvement	20	1,272
do.	do.	3	250
Methley	Sewerage and Disposal	30	5,465
Mexborough	Sewerage	30	873
do.	Land for Street Improvement	60	955
Mirfield	Depot Purposes	18	110
do.	do.	60	512
do.	Street Improvement	22	261
do.	Sewerage	30	509
do.	Land for Sewage Disposal	60	112
Morley Boro'	Street Improvement	15	280
do.	Fire Engine	10	875
Normanton	Sewage Disposal	15	300
do.	do.	60	650
do.	Sewerage and Disposal	30	7,793
do.	Paying off Loans	58	675
Otley	Street Improvement	20	400
do.	do.	28	580
Penistone	Market Purposes	20	1,100
Pudsey Boro'	Public Offices	60	3,000
do.	do.	25	3,430
Saddleworth	Land for Street Improvement	18	441
do.	do.	5	954
do.	Sewage Disposal	30	2,113
do.	do.	15	100
Silsden	Sewage Disposal	27	1,268
Skelmanthorpe	Sewerage and Disposal	30	445

I.—Urban District.		Purpose.	Yrs.	Amt. £
Skipton	...	Street Improvement	20	450
do.	...	Footpath and Footbridge	10	500
do.	...	Surface Water Drainage	30	200
do.	...	Widening of Bridge	30	2,300
Soothill Upper	...	Water Supply	30	198
do.	...	Street Improvement	20	3,655
South Crosland	...	Land for Refuse Tip	60	250
Southowram	...	Sewerage	30	1,750
Sowerby Bridge	...	P.H. (Interments) Act, 1879	60	3,090
Springhead	...	Sewerage and Disposal	30	15,361
do.	...	Sewage Disposal	15	640
Todmorden Boro'	...	Private Street Improvement	7	3,645
do.	...	Street Improvement	30	26,350
do.	...	do.	20	121
do.	...	Sewerage	30	12,875
do.	...	Sewage Disposal	30	7,000
Wombwell	...	Water Supply	30	1,470
do.	...	Gasworks Purposes	30	330
do.	...	do.	24	1,606
do.	...	do.	10	1,139
do.	...	Depot Purposes	29	805
do.	...	Street Improvement	25	2,580
do.	...	Market Purposes	21	175
Worsborough	...	Sewerage	20	400
do.	...	do.	30	874
do.	...	Offices	30	1,000
II.—Rural Districts and Contributory places.		Purpose.	Yrs.	Amt. £
Barnsley (Notton)	...	Water Supply	25	625
Doncaster (Adwick-le-Street)	...	Sewerage and Disposal	30	4,070
Doncaster (Adwick-le-Street)	...	Sewage Disposal	15	234
Doncaster (Askern)	...	Sewerage and Disposal	30	2,174
Doncaster (Bentley -with-Arksey)	...	do.	30	7,452
Great Ouseburn (Acomb)	...	Private Street Improvement	3	1,707
Hemsworth (Brierley)	...	Water Supply	30	300
Hemsworth (Havercroft)	...	do.	30	350

II.—Rural Districts and Contributory places.	Purpose.	Yrs.	Amt. £
Hemsworth (South Kirkby)	Water Supply	30	150
Hemsworth (Hemsworth R.D.)	Land for improvement of Highway	30	663
Hemsworth (South Hiendley)	Sewage Disposal	29	992
Hunslet (Hunslet R.D.)	Public Offices	30	290
Hunslet (Templenewsam)	Private Street Improvement	7	1,162
Kiveton Park (North and South Anston)	Sewerage and Disposal	30	3,480
Kiveton Park (North and South Anston)	Sewage Disposal	15	100
Pateley Bridge (Fountains Earth)	Sewerage and Disposal	28	550
Rotherham (Aston- cum-Aughton)	Sewage Disposal	28	467
Rotherham (Dalton)	do.	15	233
do.	do.	60	360
do.	Sewerage and Disposal	30	1,241
Rotherham (Thrybergh)	do.	30	1,707
Rotherham (Thrybergh)	Sewage Disposal	15	200
Rotherham (Thrybergh)	do.	60	309
Sedbergh R. ...	Isolation Hospital	30	1,222
do. ...	do.	10	74
Selby (Brayton) ...	Water Supply	30	440
Settle (Clapham-w- Newby)	do.	30	973
Wakefield (Crigglestone)	do.	10	200
Wetherby (Bram- ham-w-Oglethorpe)	Sewerage and Disposal	30	4560
Wetherby (Clifford)	do.	30	2,814
Wetherby (East Keswick)	do.	30	2,300
Wetherby (Thorner)	do.	30	765
Campsall P.C. ...	Burial Accommodation	36	213
Norton P.C. ...	do.	36	403
Sutton P.M. ...	do.	36	84

III.—Joint Boards.	Purpose.	Yrs.	Amt.
Wath, Swinton and District Joint Hospital Board.	Hospital Purposes	... 30	260

Provisional Orders granted and confirmed during 1909, under the Public Health Act, 1875.

District.	Object.
Liversedge	... Compulsory Purchase
Oakwell Joint Hospital District	.. Altering certain Confirming Acts

Urban Powers conferred on Rural District Councils during 1909.

Rural Sanitary Authority.	Section of Public Health Act.	Contributory places affected.
Bishopthorpe	... Section 44, second paragraph, & Public Health (Buildings in Streets) Act, 1888, section 3.	All
	Section 23 (3) of the P.H.A.A. Act, 1890	
Bowland	... Section 154 as to purchase of premises for street improvement	All
Doncaster	... Section 161, first paragraph	Adwick-le-Street
Hemsworth	... Section 42 as to watering of streets	Havercroft
	Private Street Works Act, 1892, except as to sewerage	South Kirkby (certain street)
Hunslet	... Section 160 (2)	All
	Private Street Works Act, 1892, except as to sewerage	Oulton-with-Woodlesford (certain streets)
Rotherham	... Section 66	Tinsley
	Section 154, as to purchase of premises for street improvement	All
Todmorden	... Section 42, as to watering of streets	Blackshaw, Erringden, and Wadsworth
	Section 45	Blackshaw, Erringden, Heptonstall, and Wadsworth
Wakefield	... Section 154 as to purchase of premises for street improvement	All
Wharfedale	... Section 42, as to watering of streets	Menston
	P.H.A.A. Act 1890, Section 23 (3)	Alwoodley

Bye-laws confirmed during 1909.

Subject.	West Riding Sanitary Authorities adopting same.
Baths ...	Skipton
Common Lodging Houses ...	Pontefract Boro'
do. ...	Ripon City
do. ...	Queensbury
Cemeteries ...	Keighley Boro'
Markets ...	Cleckheaton
Prevention of Nuisances ..	Queensbury
do. ...	Rothwell
do. ...	Bishopthorpe R.
Offensive Trades ...	Pontefract Boro'
Scavenging and Cleansing ..	Queensbury
do. ...	Bishopthorpe R.
Public Walks and Pleasure Grounds ..	Morley Boro'
do. ...	Whitley Upper
Slaughter Houses ...	Pontefract Boro'
do. ...	Queensbury
Streets and Buildings ..	Pudsey Boro'
do. ...	Hoyland Nether
do. ...	Queensbury
do. ...	Bishopthorpe R.
Water Supply (for the Prevention of Waste, Misuse, etc.)	Bingley

DAIRIES, COWSHEDS, AND MILKSHOPS.—The following Authorities in the West Riding framed Regulations under the above Orders and deposited copies with the Local Government Board during 1909:—

Gomersal, Haworth, Holmfirth, Queensbury.

PUBLIC HEALTH ACTS AMENDMENT ACT, 1907.—Districts in respect of which Orders were issued during 1909 declaring provisions of the Act to be in force:—

Morley B., Pudsey B., Balby-w-Hexthorpe, Castleford, Elland, Goole U., Hebden Bridge, Hipperholme, Mirfield, Normanton, Rawmarsh, Sowerby Bridge, Springhead, Stanley, Wheatley, Whitwood, Yeadon, Great Ouseburn R., Hemsworth R., Hunslet R., Rotherham R.

BACTERIOLOGICAL LABORATORY.

LIST OF THE SANITARY DISTRICTS IN THE WEST RIDING, SHOWING
THE NUMBER OF SPECIMENS RECEIVED FROM EACH AREA
DURING 1910.

<i>Urban Districts:—</i>			Holmfirth	...	14	Soyland	...	2
Altofts	...	10	Honley	...	5	Springhead	...	4
Ardsley	...	—	Horbury	...	27	Stainland-w-Old	...	18
Ardsley, East and	...	3	Horsforth	...	25	Lindley	...	18
West	...	4	Hoyland Nether	...	1	Stanley	...	1
Baildon	...	—	Hoylandswaine	...	9	Stocksbridge	...	3
Balby-with-Hex-	...	—	Hunsworth	...	29	Swinton	...	30
thorpe	...	—	Ilkley	...	111	Thurlstone	...	20
Barkisland	...	43	Keighley B.	...	3	Thurnscoe	...	5
Barnoldswick	...	131	Kirkburton	...	—	Thurstonland	...	1
Barnsley B.	...	203	Kirkheaton	...	3	Tickhill	...	34
Batley B.	...	223	Knaresborough	...	36	Todmorden B.	...	492
Bingley	...	2	Knottingley	...	10	Wakefield C.	...	1
Birkenshaw	...	7	Lepton	...	—	Watli-upon-Dearne	...	—
Birstal	...	2	Linthwaite	...	33	Wheatley	...	16
Bolton-upon-Dearne	...	58	Liversedge	...	8	Whitley Upper	...	18
Brighouse B.	...	3	Luddendenfoot	...	8	Whitwood	...	19
Burley-in-Wharfe-	...	2	Marsden	...	4	Wombwell	...	7
dale	...	3	Meltham	...	3	Worsborough	...	16
Calverley	...	23	Methley	...	25	Yeadon	...	—
Castleford	...	8	Mexborough	...	22	<i>Rural Districts:—</i>		
Clayton	...	—	Midgley	...	170	Barnsley	...	2
Clayton West	...	13	Mirfield	...	—	Bishopthorpe	...	1
Cleckheaton	...	7	Monk Bretton	...	35	Bowland	...	1
Cudworth	...	17	Morley B.	...	77	Doncaster	...	15
Darfield	...	13	Mytholmroyd	...	—	Goole	...	69
Darton	...	2	Netherthong	...	5	Gt. Ouseburn	...	35
Denby-and-Cum-	...	4	New Mill	...	18	Halifax	...	12
berworth	...	565	Normanton	...	7	Hemsworth	...	283
Denholme	...	4	Oakworth	...	18	Hunslet	...	19
Dewsbury B.	...	4	Ossett B.	...	72	Keighley	...	—
Dodworth	...	171	Otley	...	9	Kiveton Park	...	9
Doncaster B.	...	3	Oxenhope	...	18	Knaresborough	...	8
Drighlington	...	10	Penistone	...	15	Leeds (Roundhay and	...	21
Earby	...	13	Pontefract B.	...	4	Sea croft)	...	6
Elland	...	1	Pudsey B.	...	13	Pateley Bridge	...	4
Emley	...	—	Queensbury	...	43	Penistone	...	1
Farnley Tyas	...	6	Rawdon	...	13	Pontefract	...	10
Farsley	...	62	Rawmarsh	...	43	Ripon	...	7
Featherstone	...	5	Ripon C.	...	1	Rotherham	...	283
Flockton	...	12	Rishworth	...	15	Sedburgh	...	125
Garforth	...	16	Rothwell	...	—	Selby	...	137
Gildersome	...	13	Royston	...	28	Settle	...	41
Golcar	...	53	Saddleworth	...	—	Skinton	...	44
Gomersal	...	1108	Scammonden	...	50	Tadcaster	...	4
Goole B.	...	—	Selby	...	—	Thorne	...	11
Greasbrough	...	5	Shelf	...	—	Todmorden	...	12
Greetland	...	4	Shelley	...	1	Wakefield	...	102
Guiseley	...	—	Shepley	...	91	Wetherby	...	4
Gunthwaite-and-	...	—	Shipley	...	3	Wharfedale	...	104
Ingbirchw.	...	23	Silsden	...	1	Wortley	...	—
Handsworth	...	24	Skelmanthorpe	...	49	<i>Hospitals, etc.</i>	...	2846
Harrogate B.	...	81	Skipton	...	1	<i>School Medical</i>	...	912
Haworth	...	87	Slaithwaite	...	9	<i>Inspectors</i>	...	—
Hebden Bridge	...	14	South Crosland	...	1	Total No. of Speci-	...	10136
Heckmondwike	...	1	Southowram	...	41	mens examined	...	
Hipperholme	...	5	Sowerby	...	7	bacteriologically	...	
Holme	...		Sowerby Bridge	...			...	

No. 1. Births, Deaths, Annual Rates, etc., 1910.

SANTITARY DISTRICT	AREA (Acres)	POPULATION Estimated 1910	BIRTHS		DEATHS (Nett)			DEATHS (GROSS)		DEATHS (Nett) AT SUBJOINED AGES											ANNUAL RATES per thousand of Estimated Population.				Infant Mortality. (Deaths under 1 year per 1000 Births)
			Males	Fe- males	Total	Males	Fe- males	Total	Total Regis- tered in District	Under 1 Year	1 5	5 15	15 25	25 65	65 wards	Birth Rate	Net Death Rate	Zymo- tic Rate	Phthisis Rate	Respiratory Rate					
																					11	12	13	14	
I. URBAN																									
Altofts ..	1838	4636	75	77	152	33	27	60	55	18	7	1	2	21	11	32.8	12.9	1.1	1.3	2.4	118				
Ardley ..	1335	6820	116	115	231	60	43	103	132	46	16	6	3	24	8	33.9	15.1	1.2	1.2	3.5	199				
Ardley, East and West ..	4017	8072	113	118	231	69	59	128	115	27	22	3	6	38	32	28.6	15.9	1.6	0.7	2.2	117				
Baildon ..	2606	6923	40	50	90	42	42	84	76	8	8	2	6	26	34	14.9	13.9	0.5	0.8	2.5	89				
Balby-w-Hexthorpe ..	1615	11116	154	178	332	63	54	117	183	33	12	6	9	28	29	29.9	10.5	0.6	0.8	0.8	99				
Barnoldswick ..	2424	1636	20	16	36	13	10	23	18	6	1	1	—	9	6	22.0	14.1	nil	0.6	1.8	167				
Barnsley Borough ..	2130	9399	111	81	192	65	42	107	99	32	7	6	3	38	21	20.4	11.4	1.9	0.6	1.9	167				
Batley Borough ..	2385	49836	802	779	1581	387	374	761	794	244	105	26	31	207	148	31.7	15.3	2.6	1.0	2.5	154				
Batley Borough ..	3227	36194	412	411	823	249	267	516	488	107	36	21	17	183	152	22.7	14.3	0.7	0.7	2.4	130				
Bingley ..	11675	18736	180	161	341	124	116	240	220	32	16	14	10	88	80	18.2	12.8	1.3	0.7	1.4	94				
Birkenshaw ..	924	2481	24	25	49	17	20	37	33	4	1	—	—	—	13	19.3	7.1	0.4	1.2	2.8	82				
Birstal ..	1234	7074	84	81	165	51	69	120	114	15	10	9	4	49	39	23.3	17.0	0.8	1.3	1.8	91				
Bolton-on-Dearne ..	2325	8159	148	153	301	63	61	124	119	49	29	10	2	24	24	10.36	9.15	2.9	1.2	3.1	163				
Brighouse Borough ..	2231	20910	222	181	403	129	135	264	244	36	27	7	12	93	89	19.3	12.6	1.1	1.1	2.2	89				
Brury-in-Wharfedale ..	3136	3726	28	27	55	18	16	34	54	3	2	1	—	2	18	18.9	2.4	0.3	0.3	54	53				
Calverley ..	2106	2972	28	29	57	23	20	43	44	3	2	—	—	—	10	14.8	9.1	0.1	0.1	2.4	134				
Castleford ..	564	22614	400	377	777	163	149	312	296	104	53	15	11	83	46	34.4	13.8	2.1	0.4	2.9	177				
Cleckheaton ..	1462	4882	26	32	58	29	27	56	143	7	3	3	5	16	22	11.9	11.5	1.0	0.2	2.0	121				
Clayton ..	1142	1850	18	12	30	17	9	26	26	2	—	1	—	12	11	16.2	14.1	1.1	1.6	0.5	67				
Clayton West ..	1756	12840	131	123	254	85	79	164	165	34	16	5	2	61	46	19.8	12.8	0.5	0.5	1.7	134				
Cndworth ..	1746	6485	143	127	270	51	44	95	89	43	10	2	6	25	44	16.4	10.4	1.5	0.6	1.7	159				
Cudworth ..	2018	5325	96	95	191	44	36	80	76	27	14	3	3	21	12	35.9	15.0	1.1	0.9	3.0	141				
Darfield ..	4361	9210	163	160	323	79	63	142	131	58	11	3	7	34	29	35.1	15.4	1.7	0.5	3.6	179				
Darton ..	4302	3650	34	37	71	19	18	37	37	8	—	—	—	15	13	14.2	13.8	0.7	0.7	1.0	190				
Denby-and-Cumberworth ..	2536	2966	18	24	42	20	21	41	40	8	1	—	—	27	33	21.5	13.1	0.2	0.7	2.2	147				
Denholme ..	6720	53157	547	514	1061	415	431	846	912	156	74	23	32	243	91	20.9	15.9	1.1	0.8	2.6	147				
Dewsbury Borough ..	1917	3263	57	46	103	34	14	48	47	17	6	—	—	13	23	24.1	14.7	0.9	0.6	2.4	165				
Dodworth ..	1695	30398	379	358	737	247	203	450	426	6	51	17	16	137	23	24.1	14.8	1.3	0.9	1.9	117				
Doncaster Borough ..	1135	4132	33	42	75	18	41	59	56	8	5	3	5	25	19	25.2	13.5	0.9	0.7	3.2	135				
Drighlington ..	3519	5862	75	73	148	38	41	79	69	20	7	3	5	33	37	15.1	12.5	0.3	0.3	1.7	105				
Early ..	1994	10658	83	79	162	84	70	154	137	17	10	7	10	53	67	26.8	11.8	0.6	0.6	2.5	70				
Elland ..	3556	1607	22	21	43	9	10	19	17	3	1	—	—	6	4	14.6	12.5	0.1	0.4	1.8	55				
Emley ..	1784	479	2	5	7	2	4	6	6	1	—	—	—	3	33	21.5	13.1	0.2	0.7	2.2	143				
Farnley Tyas ..	821	5964	65	63	128	42	36	78	72	9	5	2	3	58	40	21.5	12.6	0.5	1.3	1.7	40				
Farsley ..	821	5964	65	63	128	42	36	78	72	9	5	2	3	58	40	21.5	12.6	0.5	1.3	1.7	40				
Featherstone ..	4431	14190	259	269	528	93	74	167	174	64	29	10	12	32	32	14.5	14.6	1.7	0.8	3.0	74				
Flockton ..	1108	1369	14	27	41	9	8	17	15	5	—	—	—	1	7	30.0	12.4	0.7	0.7	1.5	122				
Garforth ..	1519	3920	61	52	113	22	25	47	49	16	3	1	12	14	28.8	12.4	0.8	0.5	1.3	142					
Gildersome ..	992	2988	42	45	87	20	21	41	37	6	2	3	—	17	13	29.1	13.7	0.1	0.1	1.7	69				
Golsar ..	1593	10044	103	97	200	63	73	136	130	21	19	4	9	54	29	19.9	13.5	1.4	0.9	2.1	105				
Gomersal ..	1100	3780	40	30	70	26	28	54	48	5	5	1	18	20	18.5	14.3	1.1	0.8	1.3	71					
Goole ..	1267	20025	309	321	630	140	150	290	290	73	33	15	12	93	64	31.5	14.5	1.2	0.1	2.6	116				
Greasbrough ..	2413	3136	35	52	87	19	22	41	38	6	4	2	1	16	12	27.7	13.1	0.6	0.6	1.6	69				
Gretna ..	626	4488	37	35	72	26	34	60	59	4	1	5	6	25	19	16.0	13.4	0.4	1.1	2.4	56				
Greetland ..	1555	4896	40	51	91	22	32	54	47	5	6	1	—	24	18	18.6	11.0	0.4	0.4	1.8	55				
Guiseley ..	2057	376	10	4	14	2	1	3	3	2	—	—	—	7	55	43	33.2	13.2	0.8	0.8	2.2	117			
Gunthwaite & Ingirchwh... ..	3566	14138	246	224	470	107																			

No. II. Causes of Death, 1910.

DEATHS FROM SUBJOINED CAUSES

SANITARY DISTRICT										FEVERS										DEATHS FROM SUBJOINED CAUSES										All other causes																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
										Typhus				Enteric		Other Continued		Epidemic Influenza		Cholera		Diarrhoea		Enteritis		Puerperal Fever		Phthisis		Other Tubercular Diseases		Cancer—Malignant Disease		Bronchitis		Pneumonia		Pleurisy		Other Diseases of Respiratory Organs		Alcoholism—Cirrhosis of Liver		Venereal Diseases		Premature Birth		Diseases and Accidents of Parturition		Heart Disease		Accidents		Suicides		All other causes																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Small Pox	Measles	Scarlet Fever	Whooping Cough	Diphtheria and Membranous Croup	Croup	Typhus	Enteric	Other Continued	Epidemic Influenza	Cholera	Diarrhoea	Enteritis	Puerperal Fever	Phthisis	Other Tubercular Diseases	Cancer—Malignant Disease	Bronchitis	Pneumonia	Pleurisy	Other Diseases of Respiratory Organs	Alcoholism—Cirrhosis of Liver	Venereal Diseases	Premature Birth	Diseases and Accidents of Parturition	Heart Disease	Accidents	Suicides	All other causes																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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No. III. Notified Cases of Infectious Disease, 1910.

SANTITARY DISTRICT		CASES NOTIFIED OR OTHERWISE ASCERTAINED										CASES REMOVED TO HOSPITAL					MEDICAL OFFICER OF HEALTH.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
		FEVERS.										Other																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		Diphtheria and Membr. Group.		Erysipelas		Scarlet		Typhus		Enteric		Relapsing		Continued		Puerperal		Plague		Measles		Whooping Cough		Small Pox		Diphtheria		Scarlet Fever		Enteric Fever		Other																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		Small Pox	Cholera	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	

